













# THE PROBLEMS OF METAPHYSIC

*An*  
*Introduction to General Philosophy*

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Must we believe that what has real being is nevertheless without motion, life, soul and thought, and remains for ever an awful and venerable but unmeaning fixture ?

Plato.

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## *PREFACE.*

This book was originally intended for students. It was not meant to be used as a class-book or to take the place of the usual lectures and dictata of the professor. An exact grasp of the fundamental principles of the subject can hardly be acquired otherwise than by professorial lectures delivered tutorially. It was meant for home reading when the student had learnt enough from his classes to understand and read with profit. In respect of style, it attempted to avoid that prolixity, irrelevance and want of exact definition which too often render the study difficult, repellent and unprofitable to the student. In reading for another edition, the writer does not find that the purpose has been satisfactorily attained, but he has been able to introduce some improvements in arrangement and definition, and the book may be found useful as a supplement to class-lectures, and may help the student towards the study of more elaborate works. It attempts hardly more than a statement of the fundamental questions. But, in philosophy more than any other subject, an exact statement and definition, if accomplished, would go far towards a solution of the question, and want of accurate definition is the main cause of the endless controversies which make the study of philosophy so hopeless to many. The complaint is often made that philosophical inquiry leads to no definite result. It is true that it cannot exhaust the infinite, and that its results can never be more than proximate. But this is true, though in a less degree, of science. And philosophy can claim to have reached fairly definite results up to a certain point. Philosophy however is more subject, than any other study to freaks of theory and the glory of paradox, which set logic at defiance, and overly and conceal the tolerably well-established results of rational thought, which is, after all, only elaborated common sense.

H. S.



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# THE PROBLEMS OF METAPHYSIC

## A SYLLABUS OF RATIONAL PHILOSOPHY

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### INTRODUCTION.

#### DEFINITION AND PROVINCE OF PHILOSOPHY.

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#### § 1.

#### *Phases of Knowledge : Philosophy and Science.*

**Philosophy.**—The word philosophy is a collective term for the processes of thought by which we strive to attain a conception of the world as a whole, and of our own place, purpose, function, and destiny as factors of the world-whole ; such as will be free from contradiction within itself, and be consistent with the facts of experience ; and will thereby satisfy the requirements of our reason, and guide and help us in the regulation of our lives. What are we ? what have we to do ? what may we hope for ? these are the questions which it seeks to answer ; and it seeks to answer them by inquiring into the constitution of the world as a whole in which we live, and our own relations to the world as factors of the world-whole.

Meaning and purpose of philosophy :

Philosophy, therefore, is not a matter of intellectual or æsthetic interest and curiosity merely. It deals with problems which force themselves on the thinking mind and press for solution (whether final, or merely approximate and provisional), and

Its necessity for the guidance of life.

regarding which we are compelled to hold some view or other, in order that we may live. The question, therefore, is not one of philosophy or no philosophy, but one of good philosophy or bad—every rational being has a philosophy of some kind.

It supposes  
the sciences,

**But philosophy supposes science.**—We have therefore at the outset to distinguish between philosophy and science, and understand the relation between them. For the world-whole contains under it many parts and departments. Thus it includes under it the physical world in which the mechanical forces prevail, and evolve the sun, earth, planets and stars, with their phenomena of heat, light and electricity; and the world of living beings in which life predominates, producing plants and animals; and the world of mind with all its products. It follows that we cannot understand the world as a whole without understanding the many departments which, by their co-ordination and co-operation, make up the whole. The study of the different parts and departments of the world is the function of the different special sciences, physical, biological and mental. From this we can understand.

Because  
these supply  
the facts  
which it seeks  
to explain  
and under-  
stand, and  
the premisses  
from which  
it reasons.

**Its relation to the sciences.**—(1) Philosophy is partly dependent on science. As we are ourselves factors contained within the world-system, our study of the world must begin from within. That is, it must begin with the study of ourselves and the things round about us—with the constitution of our own minds, and the various constituents and departments of the world within which we live; and must rise from the relations of the parts, to the plan and purpose of the whole. In other words, we must begin with the various classes of things that make up the world as presented in our experience, and the various processes which constitute

its history—with earth, sun and stars, heat, light and electricity, plant and animal life, and rational minds. The study of these different departments of the world separately, each by itself, is the work of the special *sciences*—physical, biological and mental. Then, from the study of the things which have been evolved, we may hope to rise, by the right use of our reason, to an approximately true conception of the nature and purpose of the power which has evolved the world of things, and given them their order and connection, and given to ourselves our place and function in the system of the world, which is *philosophy*.

Both natural sciences and mental sciences.

(2) But it is true, on the other hand, that science depends on philosophy; for we cannot understand the constituents of the world, which are the province of the sciences, without understanding their relations to one another as parts of the one whole, and as correlative products of the power which evolves and works in the whole; that is, without understanding their place and purpose in the world-system—which is the aim of philosophy. It follows from this, that the results of science, before their full significance and application to life can be understood, must be interpreted by philosophy. Hence science and philosophy are really correlative to each other, each supplying something which the other wants, in order to be complete and satisfying as knowledge. Science and experience give the facts merely; it is the function of philosophy to explain them.

But on the other hand the sciences are without meaning until interpreted and supplemented by philosophy.

✓ **The method of philosophy.**—Thus philosophy must accept as its premises (1) the highest results of all the special sciences, along with the results of common experience, because these give us the contents of the world-whole which

The premises, of philosophy are facts of experience (including those of science,) together with principles of

Its reasoning  
is partly

philosophy seeks to explain; and (2) must accept also the fundamental notions and axioms of reason, because it is by means of these that we rise from the contents to the whole, and are able to understand their relations to one another and to the whole, which is philosophy. The *organon* of science will be observation of, and experiment on, the contents of the world as presented to us in experience, so as to discover the *causes* of things; and that of philosophy will be reason, which is the mind's power of discerning how things are related to one another as means to ends, and as factors of a higher whole, and thereby discovering the *reasons* for things. Starting from these two classes of premises, then, it may be considered to involve two correlative processes of thought, moving in two opposite directions:—

Inductive,

(i) From the parts upwards to the whole; by combining and generalising from the results of the special sciences and common experience, it seeks to rise from the parts to a preliminary conception of the world as a whole, such as will be consistent with facts, and free from contradiction within itself—which is the empirical and inductive phase of philosophy, or philosophy based on experience—called experiential or empirical, and sometimes scientific philosophy.

And partly  
Deductive.

(ii) From the whole downwards to the parts: it applies the provisional conception of the whole thus obtained, as a means of further interpreting the different contents and departments of the world, so as to understand their origin, connection and purpose in the plan of the whole; and considers that conception (or hypothesis) of the world to be nearest the truth which explains most adequately the world as presented in experience—

which is the deductive phase of philosophy, also called rational, and speculative.

Any one of those methods taken by itself—reasoning upwards from parts to whole, or downwards whole to parts—leads to a one-sided and incomplete result. Therefore what is most characteristic of the method of philosophy is this, that it uses each of the above methods as a means of checking and correcting the results of the other. By such self-correction it leads at last to a conception of the world as a system of correlated factors, co-operating together so as to constitute one organic whole; and thereby leads to an understanding of the whole, as not a merely mechanical sum-total of parts, but as made to be what it is by a purpose or idea which evolves the parts, and gives them their law, order and end.

Making the one method correct the results of the other.

It follows that in philosophy, as in science, hypothesis must play an important part. Philosophy cannot be demonstrative, because finite understanding cannot exhaust the contents of the infinite. The conclusion arrived at by the inductive method from parts to whole is only a hypothesis. The hypothesis has to be tested by the deductive method from whole to parts. In other words, having arrived inductively at a provisional conception of the world as whole, philosophy has to test this conception deductively, by determining whether the world of particular things can be explained by deduction from this hypothesis better than from any other. Hence philosophy may be said to consist in determining which of all different hypotheses is the best working hypothesis on the whole, *i.e.*, is most successful in explaining the problems presented by the experiences of life.

But it must apply the method of hypotheses,

And can only be approximate in its results.

**Hence the use of philosophy.**—Philosophy, therefore, may be said to consist in combining and interpreting the results of the special sciences and of common experience, and interpreting and applying them in such a way as to arrive at a conception of the world which will be consistent in itself and intelligible to the understanding; and will help us to understand our place and duty in the

Hence general definition.

world, and thereby to regulate our lives in such a way as to realise our function in the world and thereby our highest good. It does not aim at discovering new things and causes of things, as science does; rather it accepts facts already discovered, and tries to *understand* them, *i.e.* to see the reasons for them—their place and purpose in the system as a whole. Thus it may be said that while science seeks to find the *causes* of things, or *how* they have come to be what they are, philosophy seeks to find their *reasons*, or *why* they have been made to be what they are.

As under-  
stood by  
Aristotle,  
and

For there must be a "science which investigates the nature of Being as it is in itself, and the attributes which belong to it in virtue of its own nature. This science will not be the same therefore, as any of the special sciences. None of these deal generally with Being as Being. They divide reality into departments and investigate the attributes of each department, as, for example, the mathematical sciences do."

Carlyle.

Hence philosophy is closely connected with religion also: "The thing which a man does practically believe and lay to heart, and know for certain, concerning his vital relations to this mysterious universe and his duty and destiny therein, that is in all cases the primary thing for him, and determines all the rest. That is his *religion*, or, it may be, his mere scepticism and *no-religion*."

Various  
definitions,  
differing  
mainly in  
form of  
statement

**Various definitions.**—Of the numerous definitions of philosophy that have been given by different writers, most are identical in substance with the above. Some of the most notable may be considered here—

Wundt.

(a) "P, is the universal science which has to unite the cognitions attained by the particular sciences into a consistent system." "P. is completely unified knowledge." "The generalizations of P. comprehend and consolidate the widest

generalizations of science." "Knowledge of the lowest kind is *ununified* knowledge, science is *partially unified* knowledge, P. is *completely unified* knowledge"; "P. is knowledge of the highest degree of generality." These definitions are open however, to this objection: they make it appear as if philosophy were nothing more than the adding together of the results of all the sciences, thus making it to coincide with the former only of the above stages (reasoning from parts to whole), to the exclusion of the second (reasoning from whole to parts) by which alone the world can be fully understood.

Spencer.

(b) P. is "the science of principles" or first beginnings. But this word has two applications: (1) it may mean the first beginnings of knowledge, the fundamental notions and axioms on which all knowledge is built; (2) or it may mean the first beginnings of the world-process, the substances, powers, and laws, which have produced the evolution of the world. If we understand 'principles' in the former sense, then the definition will mean that P. is identical with epistemology, or inquiry into the origin, validity and range of knowledge. If we take it in the latter sense, it will mean the science of the ultimate realities underlying all things, as distinguished from the appearances which they present to our senses, and will therefore be identical with metaphysic.

Aristotle.

(c) "P. is the science of the absolute idea": this definition assumes that the world is not a product of chance, but of a single absolute power whose activity consists in the working out of a plan, end or purpose, the realising of an idea; so that P. is the attempt to understand the plan and purpose of the world as a whole by thinking over

Hegel



again, or reproducing in terms of finite thought, the absolute thought which has evolved the world. This is called absolute idealism, because it makes the power which evolves the world to be an absolute idea or mind embodying itself.

Ueberweg.

(d) "P. is such knowledge of those things which are, or happen, as will enable us to understand why they are or happen" (Wolff). "P. is the science of the universe, not in its particular details, but in respect of the principles which condition all its particulars" (Ueberweg).

Kant—philosophy as theory of knowledge,

(e) The above definitions, it can be seen, agree essentially in making philosophy to be understanding of the world as a whole. Some, however, prefer another definition which seems greatly to narrow its range. Thus, one may say that P. is merely "theory of knowledge," or "the science and criticism of cognition," and therefore identical with epistemology or criticism of knowledge. This definition, then, makes it to be nothing more than an inquiry into the nature of the knowing power, and the conditions which are necessary to the possibility of knowing,—seeking from these, to determine within what limits knowledge is possible, and what things are, from the nature of the case, unknown and unknowable (Kant). The business of P., therefore, is not to know things, but merely to *know how we know*, and *how much* we may hope to know. This definition, however, is evidently one-sided. Criticism of the methods and limits of knowledge is indeed necessary to P., but is not the whole of it; knowing cannot be thus isolated from what is known; we must know things before we can know how we know them. The extreme critical philosopher has been compared to the rustic who said that he would

Showing how we can know things, and how much we can know about them.

never venture into water until he had learnt how to swim.

The above definition will be justifiable, however, if we can adopt the extreme idealist thesis (c): that the world itself is brought into existence by an energy of thinking,—by a thinking power evolving the material of its own thought. For in this case knowledge of the world will be ultimately knowledge of the thought which brings the world into existence, and P. will be both “doctrine of knowledge” (Fichte) and “science of the absolute idea” (Hegel) at the same time. Or, as another thinker puts it, P. will be the attempt to know what the world of nature must be in order that it may be known by mind; and what mind must be in order that it may know the world (Schelling).

But idealism brings this back to the former definition by identifying epistemology with metaphysic.

(f) A kindred definition is that P. is the “elaboration of concepts,” by which it is meant that, before we can claim knowledge of things, we must begin by examining the ideas of things which we derive from common experience, analysing them, discovering the contradictions involved in them, and clearing away contradictions until we arrive at a system of conceptions that will be clear and consistent among themselves. Such self-consistency of ideas, it is held, is the only test of truth attainable by us (because we cannot get outside of our ideas to compare them with things); therefore a system of perfectly self-consistent ideas will be the nearest approximation that we can make to knowledge of the world as it really is.

Herbart.

The word philosophy means literally, love of wisdom or knowledge. It seems to have been used first by Pythagoras about 530 B. C. It was brought into common use by Socrates, more than a century later, to express the contrast between himself and his adversaries, the Sophists. These called themselves *sophistae*, i.e., wise or knowing men. Socrates, with greater modesty, called him-

Socrates.

self only *philosophos*, a lover and seeker after wisdom. Hence, taken in Socrates's sense, the word means, not one who knows, but one who strives to attain knowledge.

## § 2.

### *Division of Philosophy.*

Three factors  
of the world,  
and therefore

Taking philosophy, then, as the attempt to attain to some understanding of the world as a whole and of our own place and function therein, we can determine from beforehand what the principal branches and problems of philosophy will be. We can see that there are three fundamental factors of the world,—soul, including the system of material things and processes,—and God, or the absolute power which gives existence, order and connection to the world of finite things, and makes them to co-operate as one organized system. Hence P. will branch into P. of *Nature*, of *Mind*, and of *God*.

Three branches of philosophy.

But these involve understanding of certain fundamental ideas, called *categories* of thought,

But in thinking these fundamental realities, we have to apply such metaphysical ideas as *substance*, *causality*, *space* and *time*, *evolution*, *life*, *end* or *purpose*, *value* or *worth*, etc., and no consistent result can be attained by P. until clear and adequate definitions have been attained of such fundamental ideas; and an understanding of the content and origin of these ideas will involve analytical psychology. And further, if P. claims to know realities, it must justify its claim by showing what the conditions and means of attaining knowledge are, and proving that knowledge of the realities corresponding to the above ideas, is within its power. This is

*criticism of knowledge, or epistemology*, as opposed to dogmatism which assumes knowledge without showing how it is attained, and to scepticism which holds that it cannot be attained at all. Such criticism is not the whole of philosophy as some have thought, (*c* above), but is obviously essential to it as the foundation on which the superstructure has to be raised; we cannot presume to know things unless we can explain how we know them, and show that we have the means of knowing them. Hence we may divide the problems of philosophy into that of the foundation, which is "theory of knowledge," and those of the superstructure, which are philosophy proper, or knowledge of the world. Thus—

And assume the possibility of knowing things, and the right method of pursuing  
[ge.

I. Philosophy, has to be founded on *criticism of knowledge, epistemology*, or inquiry into the *origin and nature* of knowledge in order to understand the conditions on which the possibility of knowing things depends—what things are knowable and how much it is possible to know about them,—and what the limits are, beyond which knowledge cannot go. It proceeds, therefore, on the principle that we should not presume to know the world until we have made sure that we have the mental powers necessary for the knowing of it; lest we should fall into the error of assuming that we know things which we cannot know at all, and thus fall into dogmatism and self-deception. But even after the attempt has been made to apply critical methods to philosophy, considerable divergence of opinion still remains as to the best method of conducting philosophical investigation, and the range of knowledge attainable—in other words, as to the logic and limits of scientific

Hence the way has to be prepared, by epistemology,

Which distinguishes the different possible methods of philosophical inquiry, in order to discover the best methods.

These  
methods may  
be classified  
as

(a) Dogma-  
tism,

thought. Thus it has led to a general condemnation of—

(a) The *dogmatical method* of the older philosophers, which consisted in assuming fundamental principles as self-evident and axiomatic, without explanation or proof, and then deducing conclusions from these unproved premises. Indeed Kant maintained that all philosophy before his own had been vitiated more or less by this fallacy of making dogmatic assumptions as if they were certainties.

But even after such unreasoning dogmatism is set aside, there remain three other methods, each of which has been held by some to be the true method, of philosophy, *viz.*—

(b) Empiri-  
cism,  
including

(b) The older *empirical method*, which consisted in assuming that all knowledge of things must come through sensation and feeling, which are the channels of experience; and that genuine knowledge cannot go beyond what is either presented in sensation and feeling, or can be inferred inductively from these; but held at the same time that, by inference from our sense experiences, we can attain such knowledge regarding realities beyond sensation—soul nature, God—as we really require (Locke).

Scepticism

(c) The *sceptical or agnostic method*, which consists in carrying out this empirical theory of knowledge to its extreme result; and trying to show that there can be no knowledge that is not expressible in terms of sensation and feeling; and at the same time affirming that nothing can be inferred from what is given in sensation to supposed realities lying beyond sensation and that what lies beyond sensation is unknown and unknowable,

## PROBLEMS OF METAPHYSIC.

and should therefore be ignored in practical life, as if non-existent (Hume, Mill).

(d) The *rational method*, which consists in showing that sensation and feeling can give only the material of knowledge, and that such material is not knowledge until it has been interpreted by reason ; so that knowledge is a product, not of experience alone, but of reason interpreting experience. And to these may be added

(c) And Rationalism,

(e) The "*critical method*" of Kant, which consisted in making philosophical inquiry turn back upon the conditions which must be present and operative before knowledge can be possible ; and made it consists in determining how far such conditions are actually present ; and thereby whether and how far knowledge is possible. This inquiry resulted in a peculiar combination of the above three methods because it showed (1) that all knowledge must be founded on materials supplied by experience (which is empiricism) ; (2) that experience, however, is not knowledge without being interpreted according to conditions and forms inherent in the nature of thought itself (which is rationalism), but (3) that, though rational interpretation is necessary, it cannot establish any reality beyond what enters into experience in the form of sensation and feeling, so that everything beyond is unknown and unknowable (which is scepticism). The critical method, therefore, is opposed especially to the dogmatic. Since Kant's time all philosophy has claimed to be critical. Notwithstanding this, the rivalry of the empirical, rational and sceptical methods remains unreconciled—the empirical, however, tending to coincide with the sceptical.

To which may be added 'criticism' as understood by Kant,

Which really leads to a combination of the others.

II. A critical theory of knowledge supplies the foundation on which the superstructure of *philosophy* itself has to be built. The above epistemological question : How do we know things? is only preliminary to the philosophical question : What are the things which we know, and what do we know about them? And such

Then the method discovered by criticism to be the best, must be applied to investigate—

knowledge will have three principal branches, corresponding to the three principal factors of the world-system, *viz.*—

1. The nature of mind in relation to the world and God—

1. Philosophy of *mind*, or of that which knows things,—both other things as manifested to mind in external perception, and mind as manifested to itself in self-consciousness. The P. of mind (i) will start from the results of empirical psychology, or the phenomenology of mind—the science which deals with the processes and products of mind, feeling, thinking and willing, *i.e.*, the phenomena in which mind (as soul or mental reality) manifests itself to itself in consciousness; and (2) will rise from this to the ontology or metaphysic of mind, which seeks (a) to understand mind, as the reality which manifests itself in, and gives connection to the phenomena of feeling, thinking and willing, and makes them to be manifestations of one mind; and (b) to understand the relation and connection between finite minds and whatever other finite realities enter into the constitution of the world, *e.g.*, between minds and material things; and (c) between finite minds and the absolute power which gives existence, order, and purpose to the contents of the world as a whole; and (d) thereby to understand its own origin, place, function and destiny as a factor of the world-system.

Examining the different possible hypotheses,

Here we are confronted with different hypotheses as to the nature of soul and its relation to the rest of the world; and the metaphysic of mind takes largely the form of an examination and criticism of these hypotheses, to determine which of them explains most adequately the real nature of mind,—chiefly *dualism*, *pluralism*, *materialism*, and *idealism* or *spiritualism*.

2. The nature of the physical

2. Philosophy of *nature*, or of the material world which is the object of external perception.

The natural and physical sciences deal with the outward attributes and processes of matter, as they present themselves to our senses in their different departments, and which are commonly called the *phenomena* of nature (as distinguished from the realities which lie behind, and produce the phenomena). But philosophy, which aims at understanding the world as a whole, must strive to understand how matter is related to mind, and how it occasions those sensations and feelings which are its phenomena or manifestations to conscious mind; and how it produces the phenomena of nature, in other words, how it comes to put forth those powers of resistance, motion, attraction and repulsion, heat, light, electricity, organization and life, by which it works out its own development, as seen in the physical world; and how it assumes the various forms of stars, planets, plants and animals, which experience finds in nature. And in order to do this, philosophy must go beyond the outward phenomena of matter—beyond the outward processes of nature and the sensations which nature occasions in mind—and must advance to the ontology or metaphysic of matter, *i.e.*, to the question, what matter is in itself outside and independent of the sensations which it gives to mind, and how it is related to mind and to God. And the metaphysic of matter, like that of mind, leads back to the various hypotheses of *dualism*, *monism*, *materialism*, *pluralism* and *phenomenalism*—which are different possible ways of conceiving the nature of matter, and the relation between matter, mind and God.

world in  
relations o  
mind and  
God,

Including  
the study  
its pheno-  
mena,

And of the  
reality  
underlying  
them,

With various  
hypotheses,

The P. of nature continues to be *empirical* in so far as it merely combines and draws the highest results of the special sciences of nature, and seeks

The difficulty  
of nature-  
philosophy  
being that



nature itself  
is known  
only in terms  
of mind,

Viz. in sen-  
sations.

P. must there-  
fore inquire  
what lies  
beyond the  
sensation and  
this leads to

to arrive at the fundamental forces working in nature, and to understand how their working has led to the development of the material universe as it appears to experience. But the phenomena by which nature is known to experience, and which constitute the material of physical science and empirical philosophy, are only the conscious states which nature occasions in mind, viz. sensations. What physical science knows regarding nature is, in the last analysis, only the sensations which nature impresses upon us—science knows nature only as the ground of sensations—the something which occasions sensations in us—and only, in term of these sensations. But P. cannot stop at this merely empirical phase of thought. Reason cannot rest satisfied with sensations; it must inquire what lies beyond, and gives rise to the sensations. And not only must it i. e. it must rise from the phenomena to the metaphysic nature, inquire what matter is, and what mind is; it must inquire also how they are related to, and affect each other; and this inquiry leads it back to the common ground which gives existence and connection to mind and matter. Thus philosophy is compelled to rise from mind and nature into—

\*

3. The nature  
of the  
absolute as  
what gives  
existence and  
correspon-  
dence to the  
worlds of  
mind and  
matter.

3. Philosophy of the *absolute*, or of God, *i.e.*, it must seek to understand the power which evolves the world of finite things and minds, gives them their order and relations, and makes them all to co-operate together as factors of one system, for the realisation of one absolute end, which may be conceived as the realisation of its own infinity. For it is the nature of reason to reduce plurality of things and events to connection and unity; and it can do so only by finding that they are produced by a single power as means for the pro-

duction of a higher end; as the innumerable cells, tissues and organs of the tree are means to produce and support the life of the tree.

So that matter influences mind, and mind, matter.

Hence it is the nature of reason to seek to interpret the plurality of things and processes which constitute the world, as a system of parts evolved and co-ordinated by one universal power so as to be factors of one whole, and subject to one universal reason. And by thus understanding the world as an organized system, we can understand how matter affects mind so as to produce sensation, and how mind affects matter so as to produce voluntary movement.

The fundamental requirement of reason.

Therefore all rational thought must culminate in the idea of an ultimate power or absolute (God), which gives connection and unity to the whole and must seek to comprehend the relations and functions of finite things as factors of the absolute whole.

### § 3

#### *The Fundamental Problems of Philosophy.*

**Problems included in the study of mind, matter and God.**—Thus philosophy studies the nature and relations of mind, matter and God. And this study clearly involves the study of certain subordinate questions which may be here defined. For in dealing with the nature of mind, world and God, we necessarily make use of certain fundamental notions, which are not only necessary as forms according to which we ourselves must conceive things (logically necessary); but must be regarded as also corresponding to necessary forms and relations of things themselves (metaphysically necessary). And P. may be said to consist largely in determining the meanings of these fundamental ideas, and applying them to the interpretation of mind, matter and God.

The principal points of view from which philosophy—the principal categories of thought,

Or the fundamental ideas involved in the understanding of things,

Or notions  
which we  
must under-  
stand in  
order to  
understand  
things,

Sometimes  
called  
categories ;

Thus, we cannot think of any thing without thinking of it as *substance* remaining the same under successive changes ; and as exercising *causality* by producing changes in itself and other things. And we cannot think of the world therefore except as a process or complex system of changes, and therefore as an *evolution* by which the implicit contents of substance expand themselves, so to speak, into concrete things in *space* and events in *time*,—such an ‘unfolding’ of things and events being thought of as development or *evolution*. And we cannot think of change and evolution except as tending towards the attainment of some *end* or *purpose*, because evolution implies that something is being evolved, viz., a result towards which evolution is tending. Nor can we think of particular actions and ends except as having *worth* or *value*, and as being therefore good or bad, and as leading on to an ultimate good which has absolute value. These and other fundamental notions are necessarily assumed as predicates of things (whether expressed or not) in all our judgments, and have been called *categories*, or predicates by pre-eminence—those which are necessarily affirmed of all things, and without which they would not be things. And in all our thinking with regard to matter, mind and God, an understanding of these notions is required. The question of the content and origin of these fundamental notions, however, has proved to be among the most difficult in metaphysic. Thus there is—

Thus  
it regards  
things as  
substances  
or realities  
suggesting

**I. The problem of Substance or Reality.**—We know that, underlying and giving connection to the changes going on in our own minds and in the world around us, there is permanent reality or substance which manifests itself

in these phenomena ; and that mind and matter in a subordinate sense, and the absolute in a higher sense, are realities. And philosophy must arrive at some understanding as to the question : What their respective realities consist in, and how these realities are related to, and are able to influence one another. What is matter, and how is it able to act on mind ? What is mind, and how is it able to act on matter ? How are mind and matter related to the absolute reality which gives them existence and connection ?

Different  
possible  
kinds of  
substance ;

Indeed opinion may differ as to the number of ultimate and independent realities. Are we to hold that there are just two ultimate realities, *viz.* spirit and matter, and that all the phenomena of the world are produced by the operation of these two in action and reaction ?—which is metaphysical *dualism*. Or that there is only one, and that all the phenomena of the world are produced by the self-unfolding of the contents of the one ?—which is *monism*. In the latter case, we shall have to be either materialists, holding that the one self-existent reality is matter ; or idealists, holding that it is mind ; or to adopt the hypothesis of *parallelism*, holding that neither mind nor matter is itself substance, but that both are correlative aspects of one substance which supports both, but is not identical with either. Or is it possible that there are many self-existent realities, every one independent of all the others, and that phenomena of the world are produced by the interaction of a perhaps infinite number of substances ?—which is *pluralism*. Thus pluralism, dualism and monism (the latter including materialism, parallelism and idealism) are possible hypotheses with regard to the substance of mind and matter, and philosophy must

Dualism,

Monism,  
Materialistic  
and idealistic,

Parallelism  
and

Pluralism.

determine which of them has the best claim to be considered the true theory. 47

It regards  
things as  
causes and  
effects—

**2. The Problem of causality.**—All the substance in the world, both mental and material, is undergoing constant change of state and relation ; and we cannot avoid thinking that every change is *caused*, or made to be what it is by other changes preceding and accompanying it, and that every change is itself again the *cause* of other changes ; and that, in fact, all the things in the world depend on one another in such a way that every change in every one thing implies a change and re-adjustment of all the rest. This means that they are all *causally* connected ; and we cannot think of anything without thinking it under this aspect of *causality*, *i. e.*, thinking of it as an effect of antecedent, and cause of succeeding changes. Therefore one of the deepest of all questions is this : Why does the substance of the world undergo continual change instead of remaining always the same ; and why does change in one thing gives rise to changes in other things ? Hence to understand *causality*, or how things produce changes in one another, is one of the chief problems of philosophy.

Operating  
under the  
relations of  
space and  
time ;

And along with causality the ideas of *space* and *time* have to be considered ; because causality makes things to follow one another, one ceasing as another begins, thereby constituting *time* ; or to *co-exist* outside and alongside of one another, thereby filling *space*.

It regards the  
history of  
the world as  
a process of  
evolution ;

**3. The Problem of evolution** cosmical and organic.—We find that the causes which are operating in the world, co-operate with one another in producing certain complex results. These results again co-operate as causes to produce other and still more complex results. And we find that the results produced become not only more and more

complex, but also more and more perfectly co-ordinated and organized, thereby producing, by their co-operation other results of a still more complex and perfect kind. In this way, by the progressive combination and adaptation of causal forces and products, such results are at last produced as our solar system of sun, moon and planets, the habitable earth, vegetable and animal organisms, and finally conscious minds, animal and human. These products we regard as higher and more perfect than the simpler elements out of which they rise. Therefore we call this process *evolution*, because it is an unfolding, or drawing out and realising, of results which were contained potentially in the power operating in all the processes of the world—viz. in God or the absolute. And we cannot doubt that these products are themselves co-ordinated so as to produce some still higher result in the economy of the world-system as a whole—some ultimate End and Good.

Progressing  
from lower  
to higher,  
from less to  
more perfect,

Thus we find in nature a gradual ascent from lower to higher, from plurality to unity, from disorder and opposition to co-operation, from molecular agitation to nebulae and planetary systems, and from these to living organisms, plant and animal, and finally to conscious mind. This is, as it were, a *development*, or unfolding and making explicit, of what was contained implicitly (as if folded up) in the primitive energy. The nature and cause of evolution has been of all questions, the most prominent in recent philosophy.

Called evolu-  
tion, or un-  
folding of  
what was  
only poten-  
tial;

**4. The problem of end.**—Thus evolution results in the evolving or producing of something higher—it tends towards a more perfect result or product, as the evolving power latent in the organic germ tends towards the development of the perfect plant or animal. But results may be produced in either of two ways. (a) They may be

It regards  
the processes  
of the world  
as working  
out an end,

And there-  
fore as  
teleological

produced by forces working blindly and at random ; but it is difficult to understand how any combination of co-ordinated and organized results can be produced by chance. (b) There may be a reason for the production of certain results, and reason may guide the forces of nature to produce them, for active reason consists in making forces (causes) co-operate together as means for the production of a result. When a result is produced by the co-ordinating power of reason, we call its production the fulfilment of an *end*, or *purpose*.

or subject to  
final cause ;

Now one great problem of both science and philosophy is to determine whether the world on which we live, and the living creatures upon it, have been produced by forces working blindly and by chance, as some still think ; or whether the forces of nature are guided towards these results by reason, and made to co-operate in production, as means to *ends*, by power of reason. When forces are co-ordinated by reason as means to an end, the end or result for the sake of which they are made to operate may be spoken of as their *final cause* (*finis*, end), because in such cases, the end or purpose is what sets the forces working, and the end must have been present and operative from the beginning as Idea.

For why  
should there  
be any  
change in the  
world at all,  
if it were not  
for the  
attainment  
of a Good ?

Hence we cannot avoid thinking of the *results* towards which the world-process is tending, and considering whether the combinations and co-ordinations of forces which are being evolved, and the ultimate results towards which they are tending, are fortuitous merely, or are in conformity with definite *plan* and *purpose* ; i. e., whether these changes and evolutions are, or are not co-ordinated in such a way as to realise a definite End which was present from the beginning as Idea.

Indeed we cannot help going farther back, and asking the question why the absolute reality, instead of remaining in a state of perpetual rest, passed over into a state of causality, change and evolution, and why it evolved this particular system of things and no other. Are we to say that its operation has been fortuitous, and its productions, by blind chance? Or must we not rather say that there can be no change without a reason for it? If so, the reason must be a good or end to be realised; and the system of changes constituting the history of the world must be co-ordinated as a system of means for the realisation of a system of ends, and these again as means towards an ultimate end or good; and the whole system of ends, proximate and ultimate, must be present from the beginning as Idea, so that the history of the world will be the realisation of Idea (Idealism).

Surely the substance of the world would have remained at rest perpetually, if there had not been some good to be attained by change,

And this question evidently includes within it the question: how the world with all its contents—its stars, suns, planets, animals and human beings—has come into existence, and come to be what it is; *e. g.*, whether it has been evolved as means to an end, and therefore by a rational power (idealism); or been differentiated out of self-existent substance by blind force inherent in substance itself, without foresight or purpose (naturalism). Different answers to this question are involved in the theological systems of *theism*, *panentheism*, *pantheism*, and *atheism*. ✓

Operating as motive force and final cause;

## 5. The problem of value, worth, good.

—If it be the case that the changes going on in the world are so co-ordinated as to realise an idea and attain an end, it must be because that end is something *good*; and subordinate ends in order to be themselves good, must be such as to lead on towards an *ultimate* good. Hence the questions: What is good, and what is ultimately good in itself and for its own sake? Or, in what does the goodness, *i. e.*, the worth or value of ends, consist? and how is man to regulate his life so as to attain to the highest good? For we must distinguish

And it regards things as having worth or value, whether as ends, or as means to ends;



And therefore as real, beautiful, and good.

between things which are good as means towards other things, and things which are good in themselves, *i. e.*, ultimately good. And we commonly distinguish three attributes as good in themselves and for their own sake. In the life of thought we regard knowledge of truth as good in itself; in physical nature we regard the *beautiful* as good in itself; and in the life of action we regard *moral* goodness as a good in itself. Hence the problem of worth will be included in the studies of *metaphysics*, *æsthetics* and *ethics*.

What then is truth?

For we feel the perfection of mind as a thinking power must consist in the conformity of its ideas and beliefs with the reality of things, and regard the possession of knowledge as intellectual *worth* (wisdom). This is the problem of *metaphysics*. We think of things as composed of many parts so harmonised together as, by their co-operation, to constitute a higher unity, and gratify the perceiving mind with a consciousness of unity in variety, and feel that this harmony in multiplicity is a kind of *worth*, and call it the beautiful. This is the problem of *æsthetics*.

What is the beautiful?

What is the good?

And as human beings are themselves factors in the process of the world, and their actions either hinder or contribute to the higher evolution of the world, the question arises: what is the true place, purpose and function of man in the world-system? and how is he to regulate his life and conduct so as to fulfil his purpose and realise his end, and thereby attain the highest perfection of his being? This is the *ethical* problem or problem of *moral worth*. Indeed the ultimate use of all science and philosophy is to teach men how to regulate their lives so as to realise the highest perfection of their being, which they can do only by fulfilling their functions as members of the world-system.

Hence the sciences of Metaphysics, *Æsthetics*, and *Ethics*.

Hence an understanding of such fundamental notions as, Substance, Causality, Evolution, End and Value, underlies, and is essential to, an understanding of the three more comprehensive problem, of philosophy, *vis.*, matter, mind and God. *wp*

## § 4.

*Relation of Philosophy to Epistemology,  
Science and Metaphysic (Ontology).*

Philosophy begins with epistemology, derives its materials from science, and experience, and rises through empirical investigation into ontology or metaphysic. Thus—

Philosophy begins with criticism of the methods and means of investigation, or

**Epistemology.**—Much labour had been wasted in philosophy from the tendency to assume fundamental principles and results dogmatically without proving them, and without even considering whether there is any possibility of knowing them at all. The consciousness of this led Descartes first to consider carefully what ground he had for every successive step in his deductions. It led Locke to analyse more carefully than Descartes or any one else had done before, the nature and working of the faculties by which we arrive at knowledge (analytical psychology of cognition). And it led Kant afterwards to consider still more carefully the antecedent conditions without which knowledge would not be possible (his transcendental method, or method of inquiring into what must transcend or precede knowing, in order that knowing may be possible). Such inquiries have also been called 'criticism,' and 'theory of knowledge,' and more recently 'epistemology' (science of *epistémé*, knowledge). It is therefore an inquiry into the conditions on which the possibility of knowledge depends, and thereby into the range and limits of genuine knowledge, and therefore into the foundations on which science and philosophy are built.

Theory of knowledge; being compelled to make a

**Science and Ontology.**—The term science in English is now commonly used to denote those

Distinction between reality and its

manifestations or phenomena, so that

forms of investigation which can be conducted according to the 'empirical methods' of sense-observation and experiment. Hence it is necessary to distinguish between the scientific and the ontological aspects of things; and the methods of study applicable to them. Thus, in studying both matter and mind, philosophy has to distinguish between the methods of study applicable to each. Therefore in studying both matter and mind, philosophy has to distinguish between two stages or strata of knowledge :—

The sciences deal with manifestations only. Hence

(A) *Phenomenology* of mind and matter, or study of their outward processes and products as they manifest themselves to us within the sphere of conscious sensation and feeling—without any attempt to determine what either mind or matter is in itself. By *phenomena*, is meant the appearances through which things make their existence known; and these, in the last analysis are the sensations which they occasion in us. This is the undisputed sphere of the empirical method of observation and experiment, and of the empirical sciences, psychology, physics, chemistry, etc., which study only the 'phenomena,' or appearances which things present in terms of consciousness. Thus the special sciences deal with things—

Characteristics of science—

Experimental method,

(1) By direct observation and experiment—that is by seeing, touching, hearing, tasting and smelling—and drawing inferences from what has thus been observed under different circumstances at different times and places, to what will be observed at other times and places; and therefore

Dealing with phenomena only,

(2) Only with the phenomena or manifestations of things, that is, the feelings and sensations which they have given or would give us; because things can be observed only in so far as they occasion sensations in us, and in terms of these sensations; and therefore

(3) With things according to their separate departments; because nature consists of many classes of things which affect our sensibilities in different ways, thereby producing different classes of phenomena, which are the subject-matter of the different sciences. The study, therefore, of the phenomena of mind—the processes and products of feeling thinking and willing—by observation, analysis and experiment, is *mental* science. And the study of the phenomena of matter—gravity, motion, heat, light, electricity and the like—is *physical* science.

According to their departments.

(B) *Ontology* of mind, matter and God, or the attempt to go beyond the outward manifestations of minds and material things, and understand what it is that thus manifests itself by producing phenomena, mental and material; in other words, to understand things as they are in themselves apart from the sensations and feelings to which they give rise; and to understand what it is that gives them their existence, order and connection, and enables them to give rise to these sensations and feelings in us.

But philosophy seeks also to penetrate to the realities which thus manifest themselves,

This is the problem of metaphysic; and the metaphysic of mind and nature leads back to that of God or the absolute, as that which gives existence and connection to mind and nature, and makes the world to be what it is.

To soul, matter and God,

Thus the empirical sciences consist in studying the different departments of nature and mind only as they affect our sensibility, thinking of them only in terms of actual and possible sensation and feeling. Ontology or metaphysic attempts to consider what it is that lies behind, and gives rise to the sensations and feelings, and without which they would not be possible. The latter inquiry, therefore, has been called the study of real being (*onta*, the things that really are), and has to proceed by metaphysical methods of study. And

And its organon is reason,

Which supplies the understanding without which experience would be meaningless,

And proceeds  
mainly by  
deduction  
from funda-  
mental ideas.

metaphysical study proceeds not by observation of, and induction from, particulars of experience; but by showing that the phenomena of experience are consistent with, or follow from, the fundamental requirements of reason. From this it follows that, while science is essentially inductive, metaphysic is analytical and deductive—analysing the necessary motions of reason and drawing deductions from them. And in doing so it has commonly proceeded in either of these two ways:

(a) by the *dogmatical* method of assuming at the outset that the world itself must be rational, and that therefore the nature of the world can be deduced from the fundamental notions and requirements of reason; or (b) by the *transcendental* method, (founded on 'theory of knowledge') of inquiring what the world must be in order that it may be known by mind, and what mind must be in order that it may know the world; *i. e.*, by consideration of the antecedent conditions which must exist before a world of conscious experience is possible. This leads us back again to the meaning of

Philosophy  
seeks, to un-  
derstand  
reality and  
phenomena  
as what they  
are, viz. as  
factors of one  
concrete  
whole;

And rises  
from pheno-  
mena to soul,  
matter and  
God.

(C) *Philosophy*.—Here again we can see the meaning of philosophy and its relation to the sciences and metaphysic. Its work will be not only to draw the highest results that can be drawn from the sciences regarding the phenomena of mind and nature; but also to explain the worlds of mind and nature by attaining an understanding of the ultimate reality which gives them their existence and co-ordination, and makes them to be factors of one world.

For phenomena, both mental and material, considered merely as phenomena, can have no connection nor correlation in themselves, or of their own making. They must derive their existence, order and connection from realities which are above,

and make phenomena. Therefore these realities beyond have to be taken into account if we are to understand the phenomena themselves, and to understand the world as what it is, *viz.* a unitary system, in which all parts are connected with one another.

Thus mental phenomena—feeling, thinking and willing—must get their existence, order and unity as mind, from some reality underlying them which we call *soul* or *spirit*. Material phenomena—form, solidity, motion, molar and molecular, chemical, thermal, actinic, and electric—are modes and manifestations of something which, we call *matter*. But both mental and material phenomena must be products of some higher and ultimate reality which underlies and evolves them all, and gives them their connection, order and unity, as factors of one world-system, working out one ultimate end—and which we call the *absolute*. Hence it is only by understanding how things rise out of this ultimate reality or absolute, (viewing them *sub specie æternitatis*) that he can understand the world as a whole, because it is this ultimate reality that makes to be a whole.

Thus while the sciences in the narrower sense limit themselves to the empirical methods of observation and experiment by means of the senses, philosophy in the wider sense will be both empirical and ontological :

(1) In so far as *empirical*, it will accept the results of all the particular sciences, and tries to combine them together into one connected system, so as to arrive at a consistent conception of the world as a whole, as it would appear to experience if experience were sufficiently comprehensive to include the whole of it, past, present and future (such a conception as is attempted in the 'Synthetic Philosophy' of Spencer) ;

Mental phenomena point to a spiritual reality ;

physical phenomena to a material reality behind them ;

and the correlated world of mind and matter points to an absolute reality.

Philosophy therefore combines the empirical

With the rational method,

Which is ontology or metaphysic,

And seeks to understand the relation of things to the absolute reality,

(2) In so far as *ontological*, it will try, by power of reason, to go beyond experience of the outward appearances of things, and to understand the realities which lie beyond, and produce, and give connection to the phenomena of experience. And having attained a self-consistent and reasonable conception of ultimate reality, it supplies this conception to explain deductively the origin, co-ordination and purpose of the world of finite things.

But we cannot directly see, touch, nor experiment on God, nor any ultimate reality; experience gives only phenomena—feelings and sensations. Therefore, at this stage, philosophy must abandon observation and experiment—cease to be 'scientific' in the common sense—and trust to power of reason alone. And the study, by power of reason alone, of reality beyond the reach of experience, is metaphysic or ontology.

Thus philosophy in its widest sense includes both these aspects of the world, empirical and ontological, making each supplement and explain the other.

And must follow the inverse deductive method of hypothesis,

To determine what theory best explains the world of experience.

But it may be said that ontology cannot prove anything—that we must begin with phenomena, and that from phenomena we can reason only to other phenomena past and future, and not to anything above phenomena (Hume). Indeed it must be admitted that ontology must apply the method of hypothesis. It must proceed by forming hypotheses as to the antecedent conditions which would be required to produce the world of experience, mental and physical. It must ask what must reality be in order that it may make itself known to mind through phenomena? and what must mind be in order that it may know reality through phenomena? and from all possible hypotheses must select the best working hypothesis. Therefore the only 'proof' that can be offered of an ontological theory of the world is (1) that it be free from contradictions within itself and (2) that it supply a more reasonable explanation than any other, of the world of phenomena.

## PART I.

### THE PROBLEM OF KNOWLEDGE EPISTEMOLOGY.

#### I.

#### METHODS OF ACQUIRING KNOWLEDGE.

##### § 5.

**Knowledge subject to conditions and limits**—Philosophy, we have found, is based on *epistemology*, or theory of knowledge. That is, it has to justify itself by showing that it is assuming nothing more than it has the means of knowing. Epistemology is that preliminary phase of philosophy which inquires into the means and conditions of knowing things; and seeks to determine from these conditions how far knowledge can go. It is therefore closely connected with the psychology of cognition and with logic. Psychology analyses the faculty of knowing, and shows what elements are necessarily included in it—the powers of discriminating, assimilating, perceiving, remembering, imagining, inferring and understanding—and how they develop from infancy to age. Logic goes farther, and shows under what conditions, and subject to what rules, these powers must be applied in order to attain their end, *viz.* knowledge of things. Epistemology assumes these results, but goes farther still. Granted that we possess these powers of knowing, and know how to use them, the question still remains: What is the depth and value of the knowledge which they give? How far do they penetrate into the heart

Why epistemology is necessary,

And how it is related to other mental studies—psychology and logic.



Is knowledge  
attainable at  
all?

of things? Can they be made (when rightly used) to give knowledge of things as they really are in themselves, or only of external appearances or phenomena? Or, even when rightly used, are the ideas which they give only approximate and symbolical? Or are their results altogether illusory? These doubts make inquiry necessary into the ultimate conditions and limits of knowledge, and raise such questions as these:

If attainable,  
how far, in  
what sense,  
and by what  
means?

How do sensations (the materials of knowledge) arise in our consciousness? and how, from sensations within our mind, do we construct our ideas of things external to our mind? and what relation is there between our ideas thus constructed within, and real things existing without, (*e. g.*, is it a relation of resemblance, or of correspondence other than resemblance)? In other words, how from our sensations and ideas can we know the existence and attributes of ultimate realities, *e.g.* soul, matter, God? and how far can our knowledge of such things extend? Such questions as these form the subject-matter of epistemology. On one side they rise out of, and indeed partly coincide with, the analytical psychology of the cognitive powers, and on the other side they merge into ontology, the science of real things. Hence—

Different opi-  
nions on those  
subjects,

**Theories of the methods and limits of knowledge.**—It has been found difficult to settle the above questions once for all, and different results have been arrived at as to the conditions, methods, and limits of knowledge. These theories of methods and limits of knowledge may be divided thus—

Formed  
without  
criticism and  
with.

1. That arising from want of epistemological inquiry—*Dogmatism*.
2. Those arising as results of such inquiry—*Empiricism, Rationalism, and Scepticism*.

*ism*, to which *Criticism* (in Kant's sense) may be added as a combination of these three, and *Dialectic* as a special form of the second. Hence—

### § 6.

#### 1. *Philosophy without Criticism :*

##### *Dogmatism.*

The older forms of philosophy were condemned by Kant as *dogmatical*. By this he meant that they assumed, as self-evident and axiomatic, a great many principles that really were not such, and thereby made their philosophy to consist largely of deductions from unproved premises. Thus, one class of thinkers, finding it difficult to account for many of our fundamental ideas, assumed that they are *innate*, or contained in the mind at birth, and must therefore have been implanted in it by the author of our nature, and must, for that reason, correspond to absolute reality (*e.g.* the theory of innate ideas—Plato, Descartes). Another class, finding that all knowledge is based on certain fundamental propositions as its axioms or first principles, assumed that mind has been so constituted by the Creator from the beginning as to believe these propositions by a natural and irresistible instinct; and that they must therefore be absolutely true, because the author of our nature could not have deceived us by implanting misleading instincts (*e.g.* the theory of natural belief, intuition, common-sense—Descartes, Reid). But as to what ideas are thus innate, and what propositions are thus felt by natural instinct to be true, no two writers were agreed.

The dogmatical method—assuming premises without sufficient enquiry, and drawing deductions from them,

Such as the theory of innate ideas,

And that of self-evident propositions;

Another class, again, went to the opposite

Or that mind is a *tabula rasa*, and all knowledge written on it by experience.

extreme, and assumed with equal dogmatism that there are no *a priori* elements of knowledge—that the mind at birth is like a sheet of white paper—a *tabula rasa* or clean slate, without any thing upon it as yet, but ready to be written on—and that all knowledge is impressed from without in the form of experience (Locke), as photographic pictures are impressed on the sensitive plate. Such assumptions, Kant thought, were made without any exact inquiry into the meaning, origin and use of those fundamental ideas and propositions on which all knowledge and understanding of things depends (see categories). Philosophy, therefore, must stop, and go back to consider the origin, content and evidence of its fundamental ideas—which is criticism of knowledge.

## § 7.

### 2. *Philosophy with Criticism :*

#### (a) *Empiricism ; Scepticism.*

Distinction between reality and phenomena.

The first result of criticism is to distinguish between the two aspects of things—between things as manifested in phenomena, and things as they are in themselves, behind and independently of the phenomena in which they manifest themselves. Thus (1) phenomena constitute the sphere of experience and the empirical sciences, rising into empirical philosophy. (2) The realities (*onta*) out of which phenomena arise are the sphere of ontology or metaphysic, and therefore of pure reason as distinguished from sense-observation and experiment. But even criticism has not been consistent in its results, but has arrived at different conclusions with regard to the relative functions and

Differences of opinion as to how far

importance of experience and reason in thought. And modern empiricism tends to minimise the importance of reason, making it to consist in merely drawing inferences from past experiences to future ones, and denying its power to rise to anything above the sphere of experience. But in this empiricism we have to distinguish two stages—

**The Older Empiricism.**—There is nothing in knowledge that has not been derived from experience, or perception of things through the senses. Reason reduces experiences to order by classifying them, and forming general ideas from them, and draws inferences from one experience to another, but adds nothing to them; there are no *à priori*, self-evident laws or forms inherent in the nature of reason. Experience is sufficient by itself to give all the knowledge of things that we need to have, or can have. Thus, our fundamental ideas (categories) are formed by generalisation and abstraction from the things given in experience; the axioms or first principles on which knowledge and conduct are based, such as “all events have causes,” “honesty is the best policy,” are inferences from past experiences; we know from our own feelings the substantial reality of our ownself; we can infer from our sensations the existence of a world of material things corresponding to our sensations, at least in their primary qualities; and from our own existence and that of the external world, we can infer the existence and attributes of God, our own freedom and immortality, and the truth of morality and religion. In short, we can learn by the right use of experience everything that we can want to know.

This was the empiricism of Bacon, Hobbes and Locke. The common-sense intuitionism of Reid differed only in affirming that the belief in the

knowledge of reality can be attained by experience :

That experience by itself can give all the knowledge that we need, in knowledge of metaphysical realities,

Of moral principles,

And of every thing that we require to know.

reality of things as they appear to experience, has been implanted in us by the author of our nature, and that this is the reason why they must be true. <sup>vp</sup>

That experience by itself can give no knowledge of anything beyond actual and possible sensations ;

**Later Empiricism : Scepticism.**—The earlier empiricists had assumed that 'experience' gives things as they really are. The sensations which things give us actually resemble the things which occasion them. Or, if it be granted that the secondary qualities of things—colour, temperature, taste, smell, etc.—are only in our own consciousness, and not like anything in the things, yet the primary ones—extension, hardness, form, etc.—must be in the things just as they are in our sensations. And from what is thus given by experience, we can draw legitimate conclusions regarding soul and God.

That experience means nothing more than receiving sensations and storing them up in the form of memories.

But Hume in his 'Treatise of Human Nature,' first inquired what 'experience' really is. If it be what is impressed on us from without, as assumed, then it consists of feelings and sensations only, and gives no knowledge of anything beyond. It gives us a right to reason from past sensations to future sensations, but not to anything beyond sensations. (The attempt to rise from experience to realities lying above experience—to soul, matter, God—is founded on illusion.) Hence, to us, a thing is nothing but a cluster of possible sensations, which we may always experience under certain conditions, and therefore associate together in our minds into one complex idea. But beyond the cluster of associated sensations, we know nothing.

Hence things are to us only clusters of possible sensations ;

Thus, this table is nothing but the cluster of connected sensations of sight, touch and resistance, which I experience every time I approach. The room itself is nothing but the muscular feelings of motion which I experience in walking round, the feelings of resistance which I derive from the floor, walls, and furniture, and the sensations of colour,

form and touch given by various articles within it. These sensations leave their traces in my mind, and become associated together into a connected system of ideas; and these ideas represent not only the sensations which I have experienced under these circumstances in the past, but also those which I shall experience in the future; and this is really all that is meant by the thing, and by knowledge of the thing. Real knowledge comprises nothing, therefore, beyond what has been given, and will be given, or might have been given, in sensation; "there is nothing in intellect which was not previously in sense." If we think that we have a genuine idea of anything not expressible in terms of actual or possible sensation, we are only deceiving ourselves.

Which is called Sensationism,

And Associationism.

This theory of knowledge at which Hume arrived, is called *sensationism*. It is also called *associationism* owing to the use which it makes of the law of association of ideas, viz. to explain how distinct sensations become associated together into one complex idea (as, for example, in the idea of a fruit, we have sensations of resistance, touch, taste, smell, colour, etc., associated into one complex idea). It leads on to *scepticism* or *agnosticism*. For it follows that—

Consequences and

Illustrations of sensationist view.—

(1) Nothing can be known to be universally and necessarily true. Every one must judge for himself what is real or unreal, good or bad, according to his own feelings. But hardly any two men feel in the same way. Hence there can be no universal agreement as to what is true or false, good or bad, right or wrong—different men judge differently, and one man's opinion is as good as another's (*relativity* of knowledge). And that

Every man a measure to himself (relativism),

(2) We can form no genuine conception of anything beyond the range of actual and possible sensations—no adequate conception of soul because it is not anything that we can see, touch or handle; nor of God, because God is not an object of sense-experience. If we could know God at all,

Scepticism as to realities beyond sensations.

it could only by representing Him with a visible and tangible body like our own, which is absurd. Therefore we can have no real knowledge of soul, nor of God, nor of freedom, nor immortality, nor anything that cannot be made an object of sense-perception, or proved by inference from sense-perceptions.

This way of thinking has been called *scepticism* (looking round about and considering things, without forming any fixed opinion), *agnosticism* (not knowing anything for certain), and *relativism* (because it makes our opinions about things to be relative to our own mental constitution); and many empiricists such as Comte and Spencer have wavered between this frankly sceptical empiricism of Hume and Mill, and the older and more dogmatic form of Hobbes and Locke. /Q.

(b) *Rationalism.*

Reason as power of going beyond sensations, and seeing what is implied in them as to the conditions which make them possible,

But the critic of knowledge may come to the conclusion that empiricism is but a superficial way of thinking. Experience properly speaking, gives nothing but sensations and feelings, as Hume showed. But Kant found it easy to show that sensations and feelings have no meaning unless interpreted by reason. The animal has as good sensations as we have, and perhaps better, but has nothing that can be called knowledge of things—only automatic association of present sensations, and anticipation of future ones. (The difference lies in this, that we have the power of interpreting and understanding what is implied and revealed in our sensations. This means that we have reason, and that reason brings with it, or rather forms for itself, certain notions, forms and laws of its own.) Indeed reason in itself just consists in the power of evolving such notions as space, time, substance, causality and dependence, possibility and impossibility, absolute and relative, infinite and finite, necessity and contingency, and the like, and apply-

And therefore as to the realities revealed by them, such as

ing them to sensations ; and interpreting sensations as manifestations of substantial things, external to ourselves, and standing to one another in relations of reciprocal causality and interdependence, and co-operating as factors of one organic whole ; and thus rising from sensations, which are only states of our own minds, to a world of real things existing independently of us and our sensations. We can not obtain those notions by which we understand things, by merely looking at things because they are not contained in the things ; we must supply them from our own minds and apply them to things. It is the power of evolving such notions and applying them to the interpretation of experience that constitutes reason, and distinguishes man from the lower animals. Knowledge of the world therefore, is not attained by merely accumulating sensations, but by interpreting what is implied in sensations,—and this is power of reason.

Soul, World,  
and the  
Absolute,

It is not enough, therefore, that philosophy be empirical—it must be metaphysical also ; experience is meaningless until supplemented and understood by notions that go beyond experience. It is not enough to say that “there is nothing in intellect which was not in sensation” ; we must add with Leibnitz, “except the intellect itself,” that is, this power of interpreting sensation.

Arriving  
thereby at  
metaphysical  
reality.

This way of thinking has been called by various names such as the *à priori*, (because it makes certain elements of knowledge to be *prior* to experience) ; the metaphysical (because it seeks to understand what lies *behind* the physical phenomena of nature) ; the transcendental (because it seeks to understand the antecedent conditions which must precede, in order that knowledge of the world may be possible) ; and the speculative method (because it proceeds by ‘looking round,’ and taking comprehensive view of things as a whole). A more

Philosophy,  
the applica-  
tion of  
reason to  
experience.



significant term is the 'rational method,' because it gives the primacy to reason over sensation. *p. 144*

(c) '*Critical*' Philosophy.

The methods  
and results  
of Kant's  
criticism.

Some thinkers have accepted the conclusions arrived at by the 'critical' philosopher Kant, and used 'theory of knowledge' in such a wide sense as to make it include the whole of philosophy.

Thus all epistemology is criticism of knowledge, but the name criticism has generally been restricted to the method followed by Kant in his "Critique of Pure Reason" (1781). This was not so much a psychological analysis of the processes of cognition (Locke) as an analysis of the nature of thinking itself,—the conditions which must hold good before any thinking, and any understanding of things is possible. And the conclusion at which Kant arrived was, that thinking consists in the application to sensations, of the forms of space and time, and of such fundamental notions as unity and plurality, substance and accident, cause and effect, contingency and necessity; and that the conception of a world would not be possible if these forms and notions were not inherent *a priori* in the nature of thinking itself. (The result of Kant's criticism was: that the true method of philosophy is a combination of empiricism and rationalism, leading to a modified scepticism.) Thus knowledge supposes materials, and the materials must be supplied by experience in the form of sensations, and knowledge is possible only within the range of possible sensations (empiricism). But sensation by itself is not knowledge; it must be interpreted by reason. Rational thought consists essentially in the power of supplying these fundamental notions of space, time, substance, action and reaction and the like, and it is only by the appli-

Its empiri-  
cism,

cation of these to our sensations, that we are able to see *meanings* of our sensations, and build them up into a conception of a world of things and events, existing in space and time independently of ourselves (rationalism). Nevertheless, *sensations*, which are the materials out of which we build our world, are only states of consciousness; and the categories, or forms according to which reason builds them up into a conception of the world, are only forms of thought.

Its rationalism.

It follows that the world which we conceive and think, is only a world of thought, a phenomenal and symbolical world, having no resemblance of kind to the real world independent of thought—the world of “things in themselves”—which remains to us unknown and unknowable (scepticism).

What are the conditions without which knowledge would not be possible?

Thus he began with assuming that knowledge in some sense is possible (the existence of mathematics, he believed, proves it); and proceeded to inquire into the antecedent conditions which must hold good in order that knowledge may be possible. Hence he called his method *transcendental*, being an inquiry into the conditions which must *transcend*, i. e. exist above and before experience, in order to make knowledge possible, and considered these questions especially:

Kant's transcendental method.

(1) How and how far is knowledge of the world possible?

(2) How is moral obligation possible?

(3) How are freedom of will and future life possible?

Assuming that these things are possible in some sense, for experience assures us that they are, he inquires what mind and world must be in order that they may be possible.

Since Kant's time, philosophers generally have claimed to found their thought on criticism of knowledge. Some have emphasized Kant's view of

Later applications, of the method

are more  
consistently  
sceptical or  
rational.

the difference between thought and reality, viz. (that the representations which we make of things in our thought have no likeness of kind with things as they exist outside and independent of our thought), and have thereby returned to the frankly sceptical position of Hume (e.g., the Neo-Kantian school in Germany.) Others have attempted to abolish the opposition between thought ~~and~~ reality by making reality to be essentially thought realising itself (idealism). Thus Hegel attempted to establish the identity of thought and reality by the dialectic method, which may be noticed here as a form of rationalism. ✓ P.

#### (d) *Dialectic.*

Rational  
inquiry may  
take the form  
of dialectic,

The word *dialectic* means literally arguing for and against, *pro* and *contra*, in the manner of *dialogue* and debate. Hence it came to mean especially the art of finding inconsistencies and contradictions in any opinion, rendering it untenable as it stands; and trying to modify the opinion so as to make it free from contradictions.

Not only for  
the purpose  
of refutation,

(1) This method of arguing for and against, exposing inconsistencies and clearing them away, was practised by Socrates in his debates with the Sophists, the sceptics of his time. He induced his adversary to state his thesis, and to draw out all its applications and consequences in his own words, and in doing so to entangle himself in contradictions, and thereby refute himself, and thus convince himself of his own error more effectually than another person could have done. The "Socratic method" therefore was much the same as that practised by barristers in law-courts in cross-examining witnesses.

And detec-  
tion of con-  
tradictions,

Dialectic was revived by Kant in his "Critique" as a means of exposing the contradictions involved in the fundamental assumptions of dogmatic metaphysic, and in the popular conceptions of soul, world and God. And Herbart made philosophy to consist mainly in the elaboration of conceptions, that is, in the analysis of popular ideas in such

a way as to discover and clear away the contradictions contained in them.

(2) Hegel gave an extended and metaphysical meaning to dialectic. Thought is not the only thing that seeks to clear itself of contradictions, and attain to self-consistency. Contradiction and the effort to reconcile contradiction is not confined to human thought—it exists at the heart of Being itself. And the process by which the world of things is evolved is a process by which the contradictions—opposing tendencies and forces—contained in the possibility of concrete things are drawn out and reconciled, so that every complex thing is a moving equilibrium of contradictory forces.

For thought merely reproduces in itself a process of evolving and reconciling contradictory forces, which is going on objectively in the world. For the transition from non-being to concrete reality consists in a process of reconciling and co-ordinating contradictory tendencies which are involved in the very nature of real Being, and hinders its development into a concrete world. Thus every concrete thing is produced by the equilibrating and harmonizing of opposite forces (contradictory, in the sense that they tend to destroy each other). The contradictions in the nature of things tend always towards greater differentiation, and therefore dissipation of productive force, and return to nothingness. But on the other hand the unifying power of Being is ever tending to reconcile and co-ordinate opposing forces by making them co-operate for the production of a concrete whole, which is being in a higher form.

Thus the evolution of nature is a process from disintegration to synthesis, from opposition to unity in co-operation. In the world itself every '*thesis*' or positive tendency in one direction, is met by an '*antithesis*' or tendency in another direction, until

But to establish positive results, on the assumption that the logical laws of thought are identical in essence with the ontological laws of reality,

Dialectic being really development from within,

And therefore identical with self-realisation.

the evolving force of Being combine them in a '*synthesis*' viz., by making them co-operate in producing a common result. And in Hegel's view the unifying force of Being which reduces antitheses to syntheses—plurality to order and unity—is the evolving force of idea, viz. of the Good, or in ordinary language, God.

And the life  
of the  
absolute,

Hence the dialectic which works at the heart of reality is equivalent to *self*-development or *self*-realisation; and the world-process itself is a process of dialectic, of antithesis and synthesis, differentiation and reconciliation, making differences serve as means to higher unities, thereby producing the world of concrete things. This means that absolute development, or development from the abstract absolute into a world of things, is itself dialectic.

Affirmation,  
analysis and  
synthesis in  
thought  
correspond-  
ing to  
homogeneity,  
differentia-  
tion and in-  
tegration in  
nature.

In other words, every finite thing, in asserting its own existence within the whole (its *thesis*, or affirmation of itself), tends thereby to call into existence a contrary or opposite of itself (an *antithesis*, as it were); and the evolving power of the whole tends to reconcile the opposition by making the opposites co-operate as factors in a higher unity (*synthesis*). This synthesis again is itself a thesis calling forth by contrast another antithesis, and thereby a new effort of unification in a higher synthesis, and so on. This dialectic process of homogeneity, differentiation, unification; affirmation, negation, reconciliation; thesis, antithesis, synthesis—must be supposed to go on until an absolute unity is reached which will contain all possible differences reconciled within itself. The fact that the world continues to be a process, shows that this highest reconciliation is not yet attained. If we may suppose that Being is infinite (inexhaustible), we may suppose that this ultimate synthesis will never be completed at all in time, and that the process of the world will therefore be eternal. And this inexhaustible process of self-realisation is at the same time the essence of the eternal life of God.

Hence logic  
and ontology  
are found to  
be ultimately  
identical.

Human thought is dialectical, therefore, not because it is essentially different in kind from reality (as Kant assumed), but because it is

essentially a reproduction of reality. Thus the process of thinking is found to be essentially, identical in kind with the evolution of reality, and the supposed opposition between the two, on which phenomenalism and agnosticism are based, breaks down : and logic, the science of thought, becomes identical with ontology, the science of reality. And it is only by understanding the logical essence of this ultimate reality or absolute, that we can understand the world as a whole, because it is this that makes it to be a whole.

**Final conclusion to be drawn from criticism of knowledge.**—Thus there appear to be fundamentally two views as to the nature and depth of knowledge, giving two philosophies founded on epistemology ;—

Hence two philosophies of knowledge, scepticism and rationalism—

(a) That the sensations and ideas which fill up our experience have no resemblance to, or community of kind with the world of real things lying beyond themselves, and that therefore there can be no adequate knowledge of things as they really are in themselves—Hume, Kant, Comte.

That thought and reality are essentially different,

(b) That all activity of production, evolution, creation, is the realising of a future good present as Idea ; that thinking is therefore the preliminary phase of doing, and therefore of willing ; that the power which evolves the world is therefore will-power realising idea, which is equivalent ultimately to idea realising itself. It follows that thought and reality (or what makes reality) are ultimately identical. From this we can understand that our own thought is, in some sense, a reproduction or copy of reality, and our knowledge is therefore real and not merely phenomenal (Berkeley, Hegel). Thus objective idealism brings us back to realism in another form, viz. to ideal-realism. This same question of the correspondence between thought and reality presents itself again under the question of the object of knowledge.

And that they are essentially the same.

## II.

THE OBJECT OF KNOWLEDGE :  
MEANING OF TRUTH.

## § 8.

Knowledge  
supposes a  
subject which  
knows, an  
object which  
is known,  
and materials  
through  
which it is  
known, viz.,  
sensations,  
and  
conceptions  
or ideas.

Truth, the  
agreement of  
conceptions  
with object.

Knowledge,  
awareness of  
this agree-  
ment.

**Knowledge and Truth**—Knowledge consists in knowing something. What then is it that knowledge can know? We say knowledge consists in knowing *truth*. But in what does truth consist? We may understand the question thus: knowing supposes three factors (1) a subject which knows things; (2) means through the medium of which he knows things, viz. sensations interpreted and elaborated by understanding, into ideas or conceptions of things; (3) things or objects whose existence and attributes are revealed to the subject in or through his sensations, and represented in his ideas. Thus I hear a particular sound, and the sound raises in me a mental picture of a gun on the parapet of the fort two miles away, and I believe that this conception in some way, corresponds to and represents a reality actually existing. My knowledge of the object supposes the *truth* of the conception produced. *Truth*, then, consists in a correspondence between sensations and mental representations on one side, and objects apart from and independent of them on the other, such that in or through them we know the objects. Our representations are true when they correspond to things. And *knowledge*, broadly speaking, consists in having at our command a system of connected ideas, or mental representations, corresponding in form, order and relation to things existing independently of these conceptions, with

the understanding and certainty that they do so correspond.

It is not meant that the ideas are necessarily *copies* of the things, nor that the relations of the ideas are the *same in kind* as the relations of the things; when we have ideas of P striking Q, the idea *p* does not really strike the idea *q*; but the ideas *p* and *q* are so related in our minds subjectively as to convey an understanding of the objective relations of the real P and Q as they exist independently of our minds.

**Knowledge to be distinguished from imagination.**—In the pursuit of knowledge the greatest danger is mixing up what we imagine with what we know. We have to distinguish therefore between ideas constituting knowledge and ideas constituting imagination. Knowledge, differs from imagination in these points—

(1) In the *correspondence* of its conceptions with reality—in knowledge there must be a real correspondence between conceptions in our mind and objects outside of our mind, so that the former reveal to us the nature of the latter. In imagination there need not be any such correspondence.

(2) In our *awareness* of their correspondence,—we cannot be said to know a thing unless we are aware that we know it. And to know that our conception corresponds to reality, implies that we know how it originated. If we are clearly conscious that our conception is the result of perception or inference forcing itself upon us whether we will or not, and is not, like imagination, a product of our own power of construction, then we know that it corresponds to reality and is not mere imagination. To know a thing, is to have the conception of the thing and its relations *forced* upon us by the corresponding reality, (whether directly in perception, or indirectly through inference). In imagi-

Knowledge differs from imagination in this, that its activity is compulsory,

Consisting of conceptions which are forced upon us by perception and inference,

While that of imagination is voluntary,

Hence, the meaning of truth.



nation, on the contrary, we know that the image before our mind is a product of our own power of construction, and subject to our own will.

Thus to know things is to know that we have true and adequate conceptions of things, and conceptions are built up by successive acts of judgment. Hence the question

And concep-  
tions are  
built up by  
synthesis of  
successive  
judgments  
expressing  
results of  
perceptions  
and infer-  
ences,

**How conceptions of things are constructed**—Knowledge implies a subject or thinking principle which knows, and an object on which it exercises its knowing power. And what we know regarding an object is its existence, its qualities or causal powers, and its position in space and time. In short, we know the existence of things by finding that they resist our movements, and produce certain effects upon us or by inferring that under certain circumstances they will do so. Thus we know the qualities of things by means of the sensations which they occasion in us—colour, taste, smell, shape, weight, etc.; every sensation which a thing gives us supplying a new attribute, which we integrate with our idea of the thing by an act of judgment. And our ideas of things are built up by successive judgments adding on new predicates (derived from perceptions or from inference).

Coming  
under the  
categories  
of thought.

And all the predicates which we can add on to a subject are modes of certain fundamental predicates which we must always assume because without them a thing would not be a thing. These fundamental predicates are the *categories* or predicates by pre-eminence. They are mainly substantiality, quality, causality, and position in space and time. Thus, in all our thought, we predicate of things' *substantiality* or reality, which means power of preserving their own existence.

We predicate also *quality*, as something inherent in the substance of the thing by which it manifests its existence to other things. Also *causality* or power of affecting, and occasioning changes in other things. And also position in *space* and *time*, which affect the ways and degrees in which things act and react on one another. These are the attributes which make things to be things (in the phenomenal world at least), and all other predicates are modes of these. Thus when we say, London is a large and healthy city, founded, by the Romans, and situated on the river Thames, we are affirming the reality of a thing (or collection of things), quality, causality, and space and time.

And the various forms of substantiality, causality, space, time and quality belonging to the thing, are made to be integral parts of our conception of the things by successive acts of *judgment* (founded on perception, inference, or testimony). Thus, when we perceive, infer, or hear on good authority, that A is *b*, A is *c*, A is *d* (*i. e.* exists in these relations to ourselves and other things), we integrate these predicates into one conception *Abcd*, with the certainty that it corresponds to a thing existing objectively. And the possession of this conception and certainty, is *knowledge*.

Hence judgment makes knowledge.

By carrying the analysis farther we might reduce the number of the categories. We might consider the qualities of a thing to be merely the different ways in which it reacts on other things to preserve itself against them, and therefore regard them as merely modes of the thing's power of causality. Indeed we might go farther and consider the thing's substantiality to be merely its power of self-preservation, and that to be merely its power of resisting and reacting on other things to preserve itself against them; which again would be merely the exercise of its causality. In this way reality and all its attributes might be reduced to be modes

Though some think that all the categories are different forms of one, viz. causality.

merely of causality or energy, and the world reduced to be merely a system of forces in moving equilibrium. And this reduction has been made by leading thinkers.

Hence, the meaning and criterion of truth.

Hence our knowledge of things will be the product of our judgments, attained by integrating the predicates of our judgments into complex conceptions; and the truth of our judgments, the reality of our knowledge, will consist in the correspondence of these conceptions with their *objects*. And the practical test of their truth (as pragmatism shows) will be the "workableness" of these conceptions, or their quality of guiding our actions. For truth, belief, knowledge, are of use ultimately for the guidance of action. But the question remains: What are the 'objective' things to which our conceptions correspond? What are the objects which knowledge knows?

### § 9.

But what are the objects with which conceptions really agree?

Do they agree with things in the ontological, or only in their empirical sense?

(a) They may agree with the sensations which things have given or will give, and nothing more,

### The object known: theories of truth.—

The truth of our knowledge, therefore, consists in agreement between the conceptions which we construct by means of our judgments, and the things which are the *objects* of our judgments. What then are the real *objects* of our judgments—What are the things to which true conceptions correspond? What are the things which we really know? Here we have to repeat the distinction already made between the *empirical* and *ontological* aspects of things. These will give us two senses of that correspondence in which truth consists, and two phases of knowledge—empirical and metaphysical.

(a) Truth in the *empirical* sense.—Regarded from the strictly *empirical* point of view, a particular object is simply the cluster of sensations which we always experience under certain circumstances; and

truth is simply the correspondence of the conception which we carry about in our minds with the aggregate of sensations which we have experienced, and shall experience again under the same circumstances. For so far as experience goes a thing is but the aggregate of the sensations which we experience under certain circumstances, remembered and associated together into one complex idea. Thus my knowledge of the table in the adjoining room is nothing but a correct conception of the sensations which I shall experience in approaching it. Truth in the *empirical* sense, therefore, is the agreement of ideas with the possible sensations of myself or others; knowledge, the conscious possession of such ideas. Ideas are indeed *copies*, but copies only of sensations which have been experienced in the past, or will be experienced in the future. These are the only real *objects* of knowledge so far as experience goes.

Which will be  
empirical  
truth.

Another form of statement has been given to this sensationist doctrine of truth by the thinkers who call themselves pragmatists. To us, the real is what practically affects or will affect, in some way, our own life and destiny, and thereby makes itself felt by us in sensation or some other kind of feeling, agreeable or disagreeable; and to know the truth about things is to know how we shall be affected by things in the future, *i. e.*, the feelings which they will cause in us. There is no sense in speaking about truth in regard to things which will never affect us in any way—which will make no 'practical difference' to us (whence the name *pragmatism* or practicalism). It follows that to us the real is what is or will be *felt* by us, or, in the last analysis, simply *feeling*. The world to us is the possibility of agreeable and disagreeable feeling. Even if there were any other kind of reality it would be nothing to us—we should have nothing to do with it practically. The truth of our present conceptions, therefore, will be their agreement with past or future feeling. But as feeling differs in

Pragmatism.

Things are  
real to us  
only in so far  
as they make  
themselves  
felt,

And affect  
our interests,

Which leads  
to extreme  
empiricism.

different persons, what is true to one person may not be true to another. "The man is the measure;" there will be no universal nor necessary truth.

(b) They may agree with realities lying behind and producing sensations,

Which is metaphysical truth.

Hence meaning of metaphysical truth.

(b) Regarded from the *ontological* standpoint the real object is that which exists independently of myself and my feelings and sensations, and whether I am present to receive any sensation from it or not; and which, in some way, imposes the sensations upon me, and thereby reveals itself to me in them or through them. This, then, is reality in the metaphysical sense—the reality of things as "things in themselves," apart from the sensations which they give rise to in us. Real knowledge, therefore, is not of sensations, but of that which reveals itself in and through sensations. And knowledge implies not merely a capacity of feeling sensations, but of interpreting and understanding, from the sensations, the reality behind, which manifests itself in the sensations. Hence, though we cannot know things without sensations to begin with, and to reveal to us the existence of things, and cannot form clear images of things without expressing them in terms of sensation, yet it is clear that our thinking and understanding of things must go far beyond sensation; and that what is deepest and most essential in our own thought must be in agreement with what is deepest and most essential in things. We can thus bring our thought into agreement with things as they really are beyond and independently of our sensations. And if this is so, it follows that we may find in thought a key to open up to us the innermost nature of things. In other words, ideas within our minds may have so much in common with things outside of our minds, as to "represent" their real nature in some sense, and thereby give knowledge of them; so that in or

through our ideas, we can know things as they really are, and not merely possible sensations.

Even under this head, however, there are several possible ways of conceiving the object of knowledge. Thus we may conceive it after the manner of *naïve* realism, assuming both primary and secondary qualities to be objectively real and independent of mind; or, after the manner of scientific realism, assuming only the primary qualities to exist objectively in things; or, according to the phenomenalist view, that, though there must be correspondence, there can be no community of quality or kind between mental representation (phenomenon) and external reality; or we may advance to the ideal-realism of the idealistic school, that thought and reality are ultimately indistinguishable (see psychology of perception). <sup>12</sup>

The psychology of perception.

## § 10.

### But is metaphysical truth attainable?

There are ultimately two ways of conceiving the relation between thought (idea) and reality; and according to one of those ways metaphysical truth will be possible, but according to the other it will not—

Condition of the possibility of metaphysical truth

**1. Attainable: Idealism.** It is possible if thought and reality, that which thinks *and* that which is thought, are ultimately identical—if there be somewhere, in the nature of things, some essential connection between subject and object, between what thinks and what is thought, between thinking and materials of thinking, mind and world, so that the one cannot *be* without the other. If there be such a connection, it will follow that there is no reality which is not made to be such by thinking power, and no thought which is not a thinking of reality. If this be so, then metaphysical truth will be possible in either of two ways—

It is attainable according to the idealistic theory of the world:

(a) *Subjective Idealism*:—(We may suppose that all being exists only for thought, and that all thought is conscious thought.) Thus we may suppose that things require mind to give them existence and support them in existence; that consciousness is not merely a product of mind,

Both by subjective idealism;

but is its essence, so that mind in order to be mind must always be conscious. Therefore things, in so far as they exist outside and independent of our finite consciousness, must be contained in and supported by the infinite consciousness of an absolute mental power, *viz.*, God. Thus the real world is understood by Berkeley and many other idealists, as a product of conscious thought and will, contained in and supported by one universal consciousness. Hence the ontological *truth* of the ideas present in *our* consciousness will consist in their agreement with what is contained in the consciousness of God. To be *real* will mean to be contained in one universal consciousness. ✓

And  
objective  
idealism.

(b) *Ideal-realism*: We may suppose that mind is primarily a sub-conscious energy, and has to raise itself into consciousness. There cannot be conscious thought without a world of things to be conscious of. We must suppose that mind is a power which operates at first (in the logical sense) below the level of consciousness, and by its sub-conscious operation evolves a world of things in space and time, and thereby raises itself into consciousness; and that the world of things are produced at first by the sub-conscious operation of mental power, to serve as the materials of consciousness, and the means therefore by which it raises itself into consciousness. Hence, though things require mental power to evolve and support them, yet the world of things is (logically at least) anterior to the consciousness of which they are the means and materials. Hence the reality of things will consist in this: that they are necessary as the materials of universal consciousness; and the truth of our finite thought will consist in this: that its finite activity is identical in kind with the mental activity underlying things; and the products of our finite minds will be reproductions of the products of universal mind. This view, it is believed, relieves the world of the arbitrary character which subjective idealism attaches to it, and gives it a more real and objective character, *viz.* by making it to be an essential constituent of universal mind. This therefore will be *ideal-realism*.

Or ideal-  
realism.

In both these cases, agreement will be possible between thought and reality, because thought and

reality will be identical in the absolute—the power which thinks, will be identical with the power which evolves and supports the world. ✓

2. **Unattainable : scepticism.** But this is not possible to either materialism or dualism, which must both end in scepticism. For according to them there can be no *essential* connection between what thinks and what is thought, between subject and object, thinking and reality. Real things exist antecedently to, and without any dependence on, mind, conscious or unconscious; and (1) either produce minds casually by fortuitous combinations of atoms (materialism); or (2) come occasionally into contact with minds and give rise to sensations in them, without having any necessary connection with mind (dualism). But in both these cases, it will be impossible for ideas to have any community of kind with the reality underlying things. For in regard to the materialist view, we know that states of consciousness have nothing in common with atoms of matter and their movements and combinations; and in the case of dualism, as soul, according to that view, has nothing in common with matter, its states and products (feeling and ideas) can have nothing in common with those of matter.

Hence, if we accept either of these by hypotheses, we shall be driven back to the empiricist and sceptical view of truth, as nothing but agreement of ideas with sensations. Materialism and dualism will both be groundless dogmatism. There will be no real philosophy but that of sensations.

Thus the object of knowledge and the truth of our conceptions are capable of being understood in any of the above senses; and the great question of epistemology, and therefore the preliminary question of all philosophy, will be: Which of these senses of truth is the legitimate one? or in which of these senses is knowledge possible, and in which is it impossible? Extreme empiricism (sensationalism, scepticism) recognises knowledge only in the first of the above senses: that truth is agreement of ideas with possible sensations—what is

But it is rendered impossible by materialistic and pluralistic theories,

Which admit of no community between mind and matter,

Though some thinkers assume correspondence dogmatically without explaining how it is possible.



Function of  
epistemology,  
to decide bet-  
ween these  
ways of  
thinking.

beyond sensation, is unknowable and meaningless to us. But it is difficult to adhere to this extreme view ; and (as extremes often meet) sensationism has a tendency to fall back into dogmatism, and assume that sensation is a copy of reality without explaining how it is possible for it to be such. Hence the latent materialism of some positivist and pragmatist thinkers—Comte,. Spencer, James, etc.

### III.

#### THE FACTORS OF KNOWLEDGE.

##### § II.

##### *A priori* and *A posteriori*.

Epistemology, inquiring into the nature of knowing, finds that knowing involves the co-operation of two forces or factors—one affecting the thinking subject from the outside, and the other operating from within the subject itself—and has to ascertain the nature and contribution of these two factors. These are—

Distinction between experience and reason, and their relative importance as factors of knowledge.

**Experience and Reason.**—The distinction between the empirical and rational theories of knowledge is founded on a difference with regard to the part played by experience and reason respectively in the origin of knowledge. The same distinction is sometimes expressed by the words *a priori* and *a posteriori*. Thus—

(i) The empirical view, which assumes that knowledge is constituted wholly by the accumulation and classification of 'facts of experience,' is also called the *a posteriori* view, because it makes all possible knowledge to be derived from, and therefore *posterior* to experiences, *i. e.*, to sensations and perceptions; and

That knowledge is wholly *a posteriori*;

(ii) The rational view, which is also called the *a priori*, because it assumes that at least some of the elements that are necessary to the making of knowledge, have to be supplied by reason from within itself, and are therefore *prior*, or antecedent, to experience, *vis.*, in the sense that reason, with its power of interpretation, must be present as an

That it contains *a priori* elements

antecedent condition, before the materials supplied by experience can be understood and raised into knowledge.

Thus two factors are required for the making of knowledge, but the relative importance of the two has been much disputed—

(n) Hence there will be a philosophy which makes knowledge to consist in the accumulation of experiences,

(a) **Experience.**—The principle of the *a posteriori* philosophy is that all knowledge is derived from "experience", and that reason only elaborates the materials supplied by experience, and adds nothing to them. But this raises the question: What is "experience"? This philosophy says that experience consists in nothing but accumulating facts; and that reason does nothing more than to draw inductive inferences from these to other and future facts. But what are the "facts" which it accumulates, and how do we understand them as facts? Hume tried to show that they are simply sensations and feelings, which, spring up we know not how; associate themselves into clusters according to their frequency of concurrence (contiguity) and their mutual resemblances (similarity); and thereby transform themselves into ideas, and build themselves up by association into our conception of the world.

Making the external world to be the possibility of sensations,

It follows from this that we know nothing beyond sensations, that the external world is only the aggregate of actual and possible sensations or "the permanent possibility of sensations," and mind itself is only the aggregate of ideas in which sensations are retained and reproduced. As things themselves are nothing but clusters of sensations, so the causality by which things seem to produce changes in other things, means nothing  
\* to us beyond the fact that certain clusters of

sensations are uniformly followed by certain other sensations. And, mind being nothing but the accumulated and associated ideas of past sensations, it follows that "There is nothing in intellect which was not previously in sensation." This accumulation and association of sensations in the form of ideas, accounts sufficiently for all genuine knowledge. If we think we have any knowledge that cannot be accounted for in this way, we are deceiving ourselves.

And mind to be the aggregate of ideas of past and future sensations ;

(b) **Reason.**—But it is this fact established by Hume, viz. that experience in the strict sense of the word gives only sensation, that makes it necessary to advance beyond sensation and recognise the presence of *a priori* elements in knowledge (Kant). It is not really possible to think the world in terms of Hume's and Mill's sensationism ; if we think that we can, it is because we are thinking loosely. Thus we cannot really think a material *substance* as a cluster of sensations merely ; we think of the sensations as the effects and manifestations of something which reveals itself in or through them ; and it is not the sensations but the something which reveals itself in them that is the real object of our knowledge. We cannot think our *self* as merely a series of feelings and ideas, but as that which becomes conscious of itself in the series, and gives them their connection and unity as a single mental life. We cannot remain satisfied with thinking of a *change* as merely uniformly following another change ; we think of *reality* as exercising force and producing changes, and giving them their order and connection as factors in one correlated system of events.

(b) And a philosophy which makes knowledge to be the product of reason operating on sensations,

For, it is impossible to think in terms of sensation alone,

Thus we have to apply the notion of *substance* and *attribute* before we can understand our sensa-

Elements of thought are required also ,

viz., the  
categories  
of under-  
standing.

tions as functions of our own minds, or as manifesting attributes inherent in external things ; and the notion of *causality*, before we can conceive these things and minds as manifesting their existence by producing effects on one another, and thereby constituting a world of reciprocally dependent realities. But these and the other fundamental realities on which our conception of a world is based, are not given in sensations. What, then, is the origin of such ideas? The only explanation that can be given is that they spring from the nature of the rational thinking principle itself ; that reason itself consists, in seeing that there must be substantiality and must be causality in things ; in supplying these notions *à priori* and applying them to interpret the meaning of sensations, and understand sensations as manifesting a world of real things ; and that the truth of these notions does not consist in their being given from the outside in sensations, but in their being an essential part of the nature of thought itself.

Hence  
sensations  
must be inter-  
preted by  
reason, add-  
ing elements  
of its own.

Hence if knowledge be a product of mind working rationally, we must expect to find in knowledge itself the forms according to which reason operates. There can be no doubt indeed that the means and materials of knowledge come to us in the form of feelings and sensations, or what we call experience. But it is equally clear that sensations would have no more meaning to the mind than written pages have to an animal, if the mind did not bring with it the power of interpreting and understanding what they imply. Such power therefore, must be *à priori*, or prior to sensations themselves, and must bring into the making of knowledge something more than was contained in sensation. Hence the question comes to be

# What elements are contributed by Reason ? Theories of 'a priori' knowledge.—

The fundamental notions called categories of knowledge have been <sup>at</sup> general times referred to above as probable of *a priori* origin. But the question has given rise to so much controversy, and has taken such an important place in the history of philosophy, that it requires further consideration. Is it really possible to break up our knowledge into its *a priori* and *a posteriori* constituents, determine once for all what belongs to reason, and what comes from experience ? In the history of past philosophy we find several such attempts, but none of them is wholly satisfactory, as for example :—

(a) The theory of *innate ideas* as formerly held by Platonists and Descartes ;

(b) The theory of intuitively self-evident *principles of common sense*, as held by Reid and the intuitional school ;

(c) The theory of *a priori forms and laws* of procedure as inherent in the essential nature of thought, and imposed by it on all the materials presented to thought, because necessary to the very possibility of thought (result of Kant's Critique of Reason) ; and

(d) The theory of *inherited experience*, or mental evolution by hereditary transmission of acquired powers—the hypothesis by which Spencer has sought to reconcile and combine the *a priori* and *a posteriori* views, and which requires further consideration. Hence it is necessary to consider further this question of the origin of knowledge.

The contributions of reason described as *a priori* elements of knowledge.

But these have been understood in different ways,

Of which Spencer's theory requires special consideration.

## IV.

### § 12.

#### THE ORIGIN OF KNOWLEDGE.

Epistemology finds that knowledge derives its materials from experience but depends also on the application of reason to experience, and inquires further into the ways in which experience and reason co-operate in the production of knowledge, and comes to the conclusion that—

Hence the true nature of knowledge, and how we attain knowledge of things.

**Knowledge has its origin in experience—interpreted by reason.**—All knowledge—all science and philosophy—must begin with what we are directly conscious of regarding self and not-self—what we feel, touch, see, hear, taste and smell. In other words, it must begin with experience. But merely having sensations and feelings, is not knowledge. Animals have as many and as good sensations as we have—indeed, it is probable that some have more and better kinds. But animals do not *understand* the meanings of their own sensations ; their actions are prompted by feelings and impulses working automatically ; they do not *know why* they perform them ; they want power of *intelligence* or *reason*. They do not clearly foresee what will be good or bad, and devise means to attain the one and avoid the other. Knowledge consists essentially, therefore, not in merely having sensations, but in *interpreting* sensations—*i.e.* discerning what they mean or imply as to the realities which give rise to them, and as to what has happened in the past and what will happen in the future—which is the function of reason or understanding. Knowledge is attained

It is by the rationalising of experience.

not by the accumulation of experiences in the narrower sense, but by the *rationalising* of experience. *—P.*

Hence knowing will include the following processes :—

And the following processes are involved,

(a) Acquisition of *material* for knowledge in the form of sensations and feelings.—The world round about influences the thinking principle, and occasions sensations and feelings, by means of which it comes to distinguish itself as having them, and an external not-self as occasioning them—between *self-consciousness* and *other-consciousness*, one's own self and the external world.

Acquisition of material.

(b) Spontaneous *analysis* or discrimination of feelings and sensations, to distinguish their different kinds and quantities—hot and cold, hard and soft, light and heavy, colour, touch, smell, and the rest in all their varieties—because they all reveal directly or indirectly, the existence, qualities and quantities of things ; and

Differentiation of material,

(c) The *interpretation* of sensations with their various quantities and degrees, so as to understand what they reveal or imply regarding the realities beyond them—the qualities and quantities, relations and connections of things, self and world, soul, matter, God, with their attributes and relations. Indeed understanding experience may be compared to reading a book. Our eyes give us nothing but certain forms in black and white, and animals and even illiterate persons see nothing more. But when a printed page is presented to an educated person, he not only sees and discriminates the black marks with his physical eyes, as animals do, but sees the whole meaning of them with his mind's eye. So it is with our experience ; it is

Interpretation and integration by application of reason,



not enough to have sensations ; we have to read off their meaning ; and this we do by our power of reason.

Thus arriving  
at these  
chief results :

Thus, beginning with feelings and sensations, we interpret and understand them—

—Knowledge  
of self,

(i) As, in the first place, states and functions of our own *self*, expressing and manifesting the substantial reality of our self as the subject which experiences them—which is *self*-consciousness or internal perception, and

of world,

(ii) As revealing the existence, at the same time, of *things* external to our self—things having the properties of filling and resisting motion through space ; and of acting and reacting on one another so as to produce changes of one another's position and molecular condition ; and of thereby occasioning sensations of movement, temperature, colour, taste, etc., in sensitive minds—which is *other*-consciousness or external perception ; and at the same time

of God.

(iii) As revealing both our own self and the external things with which we are in relation, to be finite, limited conditioned things, thereby implying and revealing indirectly, the existence of an infinite and absolute power as their ultimate ground—which is consciousness of the *infinite*, or of *God*.

But these  
results  
require  
criticism,

(d) But as the results arrived at by the application of reason to experience may have been hurriedly drawn, and may involve dogmatic assumptions and latent inconsistencies, a further application of reason is necessary, *viz.* to correct the work of reason in the interpretation of experience. Such application of reason to discover and clear away contradictions and assumptions in its own work, is philosophical *criticism*.

And finally  
rise into  
philosophy  
itself.

Thus, by power of reason interpreting experience, we may arrive at last at a philosophy, or reasoned conception of the world-whole, *viz.* as a system of finite things and minds acting and

reacting on one another in space and time, and evolved and helped together as factors of one system by a single absolute power which gives them their existence, order, and connection. Here then we have to consider further—

### § 13.

**Different attempts to explain the origin and development of the knowing powers:** Thus knowledge is attained not by experience alone, but by the rationalising of experience, *i. e.*, the interpretation and criticism of experience by reason. It is a matter of interest, therefore, how this capacity of receiving experiences from without, and this faculty of spontaneous reaction from within for the interpretation of experiences, have originated. Were these cognitive powers brought into being by the action of the external world from without, or by self-evolution of the mental principle from within?

Origin of the capacities of experience and powers of reason.

**1. Can the mental powers have been developed by impressions from without?—**

Experiential thinkers have sought to account for the powers of experience and reason by saying that they have been produced by impressions from the outside, (*i. e.*, by sensations), the effects of which have been transmitted by inheritance from generation to generation, and that our minds have thus been made to be what they are by the accumulated experiences of many generations.

Spencer's theory that reason is itself a product of experience :

Thus, the doctrine of the primacy of reason, which seems to make it to be antecedent to and independent of experience, has been objected to on this ground: It seems to assume that our rational

That what is  
*d priori* in  
us was  
*d posteriori*  
in our  
ancestors  
which is

power has existed ready-made and complete from the very beginning. But analogy would lead us to suppose rather that the powers of thinking and understanding have come to be what they are, not all at once, but by gradual growth and development from age to age, as the different species of living organisms are held to have originated; and that this development has been brought about by gradual acquisition of new powers through effort and practice, and the transmission of such new powers by inheritance. In this way, reason can be shown to be itself a product of experience, and not anterior to all experience as assumed. And in this way the *d priori* and *d posteriori* theories of knowledge can be reconciled by showing that what is now *d priori* in knowledge, was *d posteriori* in its origin. This is made clear, they think, by the theory of—

### Inheritance of acquired modifications

Explained by  
Spencer's  
doctrine of  
inherited  
modifica-  
tions—

—Thus from the beginning human beings were subject to the action of external things, always imposing on them new sensations, and thereby compelling them to act and think in new ways. When such new ways of acting and thinking proved to be permanently beneficial, they were frequently repeated, and by repetition came to be permanent habits of acting and thinking. The habits thus imposed on men by external circumstances, became at last so engrained in the structure of body and mind that they were handed down to subsequent generations by inheritance; and went on deepening, accumulating, and becoming better organised, and better adapted to external circumstances, from generation to generation. At last, the accumulated mass of habits and tendencies to act, think, and believe, have been inherited by us, as instinctive impulses, innate in our nature

New powers  
acquired by  
effort and  
practice,

Preserved in  
modifications  
of organism,

—acquired indeed through the experiences of our ancestors, but to us *priori*, (*i.e.*, antecedent to our own experience as individuals).

And inherited by descendants.

Our reason itself is nothing but this mass of connected powers and tendencies acquired by our ancestors. Intuitionists imagine that the axioms of the sciences, the fundamental categories of thought, the first principles of morals, are self-evident intuitions, or facts, which we can see with our mind's eye without the help of experience. But they are really habits of thinking and acting which experience of the world has impressed on the mind of the race, in the course of innumerable ages. They are to some extent *à priori* now in the sense of being natural and instinctive, but they were *à posteriori* before they became *à priori*.

Hence *à priori* knowledge is only hereditary experience, and the *à priori* and *à posteriori* views thus reconciled.

The answer of rationalist thinkers to this explanation of reason is, of course, that, if there were no reason in a single sensation, there could never be any in an accumulation of sensations, just as a positive quantity can never be made up by the addition of negative ones.

**2. Can the mental powers have been developed by dialectic activity from within?**—The development described above is development by *epigenesis*, that is, by addition of modifications forced on individuals from the outside, by external circumstances. Mind is not a centre and source of activity working from within and developing itself; but a system of effects produced by external forces acting on the organism and brain. Many, however, now think that powers and habits acquired in this way by individuals are not transmitted to the next generation—that there is no “inheritance of acquired modifications”—that only changes that spring from within, are inherited. Hence, if there be development or evolution at all, it must be (as the words themselves imply) by “an unfolding from within”, not by addition from without. Therefore

Theory that reason rises out of the nature of thought itself, and was not acquired but evolved;

or self-  
firmation,  
self-analysis  
and self-  
synthesis are  
involved in  
the nature  
of thought.

mind must be itself a centre of activity. Its growth must consist in this that the fundamental mental activity differentiates itself into different mutually exclusive activities, and at the same time makes them all co-operate together in the one complex system of activities which constitutes a mind. This self-differentiation and self-integration is dialectic—the unfolding and reconciling of contradictions working from within thought itself. Thus the life of the mind is a continuous effort to adapt itself and its organism to its external circumstances and its function in the world. Such effort of self-adaptation produces an effort to discriminate more perfectly impressions and states imposed from without, and to differentiate new modes of thought and action to correspond to new forms of impression. But differentiation by itself means division and dissipation of powers. Therefore the mental principle which differentiates its own power into many different powers, must also integrate these again into higher syntheses constituting complex activities of thought, and producing complex ideas and beliefs. One new power, as *thesis*, calls forth another by differentiation as its *antithesis*, and the rivalry of the two necessitates a reconciliation in a higher complex or *synthesis*.

Hence  
mental deve-  
lopment is  
essentially  
self-devel-  
opment,

Which is  
immanent  
dialectic.

Thus mental development is indeed prompted by impressions from without, but it is not made by mere addition of impressions (experiences). Mind must develop itself from within, by 'unfolding' the powers potential within itself; and each forward step necessitates its correlative; and the opposition of correlatives, a reconciliation in a higher unity which includes both, and so on by dialectical necessity. It is only such spontaneous developments by necessity from within that can be inherited, and go on accumulating through

successive generations ; and such self-development is by immanent dialectic. Experience supplies only the occasion and impulse. Rationalism is therefore justified ; there is an essential difference between *à posteriori* and *à priori*—between what is impressed from without, and what springs from the essence of thinking itself.

It is true, however, that neither of their contributions is complete in itself : influences from the outside are nothing (so far as knowledge is concerned) until interpreted by reason ; the power of reason can do nothing without influences from the outside on which to operate.

## V.

### CATEGORIES OF KNOWLEDGE AND REALITY.

#### § 14.

How then  
does reason  
interpret  
experience?

✓ **What then is meant by saying that reason 'interprets experience'?** It means that reason enables us to apply the notions of substantiality and quality, space and time, and causality to our sensations, and think of them as things and qualities of things existing outside of ourselves and acting and reacting on one another in space and time—regarding the conception thus formed in our minds as corresponding to reality existing independently of our minds (perception).

By applying  
to sensations  
its own  
categories of  
understand-  
ing.

Thus experience presents us with a plurality of unconnected sensations of different kinds and degrees. Understanding consists in interpreting these as phenomena or manifestations of a world of connected things, acting and reacting on one another in moving equilibrium, which is the physical world. In order to understand them as such, the thinking principle has to interpret them by applying to them certain connecting notions which it finds not in the sensations, but in its own self (whether they be forms inherent in the nature of thinking as Kant thinks, or acquired by ancestors and inherited by us as Spencer thinks). These fundamental notions by which we understand things have been called categories of thought. J 9

For what is  
implied in  
knowledge  
of things?

**What then are the categories by which reason interprets experience?** Knowing things means knowing their existence and their connections and relations with one

another as factors of wholes, and of the higher whole which we call the world. In thinking, we think something about a thing; and what we think about a thing is that it *exists* as a thing, and has powers of producing *effects* in other things, and stands in certain *positions* in relation to other things. And finite things exist and manifest their existence by acting and reacting—exercising *causality*—on one another; and we distinguish their powers of reaction by the effects which they cause, and call these powers their *qualities*. But the degree of effect which a thing produces on other things depends on certain relations in which it stands to other things, *e. g.*, relations of *space* and *time*. Hence, having perceived that a thing possesses certain powers, and stands in certain relations, (or acts in certain ways upon other things), we integrate the ideas of these powers and relations with the idea of the thing by acts of judgment; and thenceforth we think of them as *attributes* inherent in the things as *substance* or reality. And to express the fact that we put them into our conception of the thing by an act of judgment, we also call them *predicates*. And the word ‘category’ means what is predicated or affirmed of something.

We must understand them as realities having properties and relations to one another, which are thought as their predicates.

The thing or subject, to be sure, to which the predicates are ascribed, is, for that reason, not a predicate in the same sense, but is included among the fundamental predicates or categories for convenience. We call it *reality* or *substance*, by which we mean that it has independent existence of its own, and *stands under*, supports and holds together, the attributes; and by means of these, as its properties or powers, maintains its own existence in interaction with other things. The attributes, on the contrary, have no independent existence of their own, but exist only in their substance. They are in fact the different ways in which it is capable of reacting on, and affecting other things, so as to assert and maintain its own existence against

Hence our ideas of things include ideas of them as substance, having powers or properties, of causing changes in one another,



them ; and therefore applications of its one fundamental power of self-preservation.

And standing in relation to one another, in space and time.

Thus a thing's attributes of impenetrability and extension are its power of reacting on other things to maintain its own position in space ; its colour and sound are its powers of reacting on ether and air, thereby affecting at the same time the eyes and ears of sentient beings ; and so on with all its other qualities. And to these predicates which are real powers of reaction, we have to add others which are only conditions on which modes and degrees of reactions depend, such as position and order in space and time, relations of whole and part, containing and contained, and the like. It follows that there will be certain fundamental predicates which will have to be predicated of all finite things. All other predicates will express modes of these fundamental ones. They may therefore be regarded as generic predicates of which all other predicates are species. .

And these are predicated of things' attributes in our judgments of them.

*How then are the categories related to other predicates ?*—Predicates may be roughly divided into the following classes :—

Essential predicates—categories, of which other predicates are only modes.

(i) Some seem to be *essential* to the very existence of the thing, in the sense that it would not be a thing without them. Predicates of this kind will obviously be assumed and understood as underlying all other predicates, and will be implicitly affirmed along with them. These will be predicates by pre-eminence.

Contingent predicates, which things may have or be without.

(ii) But the greater number may be described as *contingent*, in the sense that their presence depends on variable circumstances, so that they may differ in the same thing at different times. This is not to be understood as meaning that the power of self-conservation which constitutes the essence of the thing differs at different times, but merely that different circumstances compel the thing to react in different ways, and these different ways of reaction appear to us as different qualities.

Thus an orange is always and necessarily something occupying and resisting movement through space, and reacting on surrounding things; but its reaction may take the forms of being hard or soft, small or large, light or heavy, green or yellow, sweet or sour, according to the organs upon which its reaction falls, and its own stage of growth and decay.

*Thus categories are the essential predicates* of which all others are modifications. For the word *category*, though it means simply what is predicated or affirmed, has been used since Aristotle to mark, by pre-eminence, the predicates of the former class,—those predicates which are essential to the existence of a thing, and without which the thing would not be such; and which are therefore contained and affirmed implicitly in all other predicates.

Fundamental  
predicates  
further  
considered.

What, then, are these fundamental predicates, which are assumed in all judgments? Different enumerations have been made by different logicians, some giving a shorter and others a longer list; but all agree in including, as fundamental, substantiality, quality, causality (power of acting and being acted on) and position in space and time.

Though these notions seem to be all assumed and implied in every judgment, it is not meant that we think of them all equally in every judgment. Every judgment presents some one aspect of the subject more prominently than the rest. Thus, when we say, 'the plant is poisonous,' we are thinking of the plant as a thing or substance and affirming of it the attribute *poisonous*, and therefore thinking mainly under the category of *substance* and *attribute*. When we say, 'there is a boat on the tank,' the category of space is prominent. When we say, 'he will go home during the holidays,' we are thinking of both space (home) and time (holidays). When we say, 'the rains have swollen the river,' or 'the river has washed away the bridge,' we are thinking of *causality* mainly,

And all the  
predicates  
which we  
ascribe to  
things are  
modes of the  
categories.

though *substance*, *space* and *time* are all in the background of our thought. Thus every predication affirms something about a thing's reality as substance, its position in space, its time, and what it does, or has done to it; and all other predicates are only modes of these. Hence the question of the origin and significance of the categories,—

### § 15.

Our ideas of things contain certain fundamental ideas. Thus

**Origin and significance of the categories.**—Now the questions, how we get these fundamental ideas, and what their real meaning and content is, and what relation there is between the ideas as we have them in our minds, and the corresponding realities independent of our minds, are among the most fundamental in epistemology. First as to

#### *Space and Time.*

Things must be either co-existent or successive.

Finite things in order to be finite must be distinct from one another, and must react on and limit one another. Now there are two ways in which they can do so. They may co-exist outside and alongside one another, holding one another in equilibrium. This co-existence will make them to have the form of *space*. But they may be inconsistent with one another in such a way that the one must pass out of existence before the other can come into existence. This inconsistency will make them succeed one another, and have the form of *time*. Hence—

And therefore either side by side in space or successive in time.

**Space.**—We regard extension in space as one of the primary qualities of matter, and extension means the quality of occupying so as to resist motion through a certain extent of *space*. Things, therefore, are understood as being in *space*, occupying and excluding one another from certain portions of space, and moving from one part to another. The question regarding space is partly (1) *epistemological*: how do we come to form our

conception of space ? and (2) partly *metaphysical* : what is the nature of space in itself apart from our conception of it ? or what is the relation between our conception and the objective reality ? Hence—

(A) **The epistemological problem.**—Different attempts have been made to explain the genesis of the idea of space.—

(1) The *association theory*, or better (as all theories involve association more or less) the *dynamical* theory, conceives space simply as a generalised idea of all possible movements. It assumes that the idea is acquired by experiencing many muscular sensations of movement of different kinds and degrees, associating them together into a general idea of all possible movements, and abstracting from them a still more general notion of the *possibility of movement*. In thinking space in the abstract we are thinking of this possibility : and nothing more. Thus free unresisted movement, of different kinds and degrees, gives the notion of *empty* space ; resisted movement, of different degrees and durations, gives *filled* space or extended substance. The *extent* of any portion of space, empty or filled, is measured by the quantity and duration of muscular effort required to move across or round it. Thus the idea of space is gradually constructed from experience of muscular sensations, with memory and abstraction of what is common to them all—arriving at a general notion of the possibility of free movement (giving empty space), and resisted movement (giving filled space, *i. e.*, material substance). One objection to this explanation is that experience gives us things only successively, *i. e.*, in time. How then from succession in time could we arrive at an idea of the things as co-existent, *i. e.*, in space ?

Another objection is that we cannot understand movement as movement without having already

Hence the questions, what is space, and how do we come to understand it ?

That space is what makes movement possible, and that the idea of space is an idea of possible movement, formed by abstraction from experiences of movement.

the idea of space. In other words, movement does not explain space ; space explains movement.

That we directly perceive space as an objective reality in which other things are contained.

(2) *Intuitional* theories attempt to explain it as a reality given by direct perception,—something which we directly see and feel outside of us—without supposing any such process of gradual construction by experience and memory. When we look outwards we see space itself as well as the trees and houses situated in space. Hence the extension of things in space is an attribute which we perceive directly in the things themselves ; our sensations, in revealing to us the existence of things, reveal to us their attribute of filling space just as they reveal their attributes of colour and weight. No memory of movement is needed. And having got the idea of things as extended thus directly by sense-perception, we have only to think away the concrete things, to get the abstract idea of extension without things, *i. e.*, of empty space.

Some however thinking that sensations themselves have the attribute of extension.

And this space-filling attribute of things is supposed by some to be revealed in that quality of sensations which has been called 'extensity' or 'voluminousness.' For some sensations seem to differ not only in intensity, but also in being extensive or acute. Acuteness enables us to know that they proceed from a *point* in space ; extensity shows that the object underlying them fills a certain *extent* of space. Thus, it is said, we have space directly presented to our mind in sensations.

The objection to this view is that this so-called extensity is merely a quality of the sensations, and by itself gives us no understanding of the distance, shape and magnitude of things. It is only after these space-relations have been understood by muscular movement that the so-called 'extensity' of sensation can be interpreted as corresponding to them, and as suggesting them. It is impossible to separate the idea of space from the consciousness of movement because, whatever space is, it is what makes the idea of movement possible. And we cannot suppose that sensations

themselves are extended things, as the above view would imply.

(3) The *a priori* theory assumes that space is a form under which we must represent things in our mind's eye, in order to be able to conceive, understand and think about them. For we cannot form any concrete representation of things without objectifying them, or thinking them as external to ourselves and to one another, and therefore as in space. For the materials of our thought are themselves only sensations, and sensations are only states of our own minds—not things external to ourselves and cannot be themselves extended things, nor contain space within them in any sense. How then do we come to think of them as things? In this way: our sensations are not of our own making, but imposed on us whether we will or not. Hence we are compelled to explain them to ourselves; and we do so by thinking things which occasion them, and representing these things as external to ourselves and to one another. And in order to think them as such we are compelled to supply *from within our own minds* a notion of space, as what makes possible the simultaneous existence of things outside of ourselves and of one another.

That space is a form under which mind necessarily represents

things in order to understand them as things,

And is therefore imposed by the thinking power itself.

Therefore space is a form which the thinking power evolves and supplies from within itself, and imposes upon its sensations in order to explain and understand them as independent things (Kant).

That there is some truth in this *a priori* theory of the mind's power to construct space for itself, is shown by what may be called *conceptual*, or *mathematical* space. The mathematical notion of perfect points, lines, surfaces, circles, etc., with which geometry deals, is not really taken from outer experience—experience gives no such things, they have no real existence in nature—they are constructions of the thinking principle working from within.

The case of mathematical space.

Hence three theories of space.

Thus three explanations have been given of the origin of the idea of space : that the mind builds it up by putting together its experiences of movements ; that it sees and feels space as a real something existing outside and independent of itself so that its idea of space is a copy of what it sees and feels, and no construction is needed ; that it is a form which the thinking principle necessarily supplies from within itself and applies to its materials in order to think them, so that it has no existence outside of mind itself.

But what is space in itself ?

(B) **The ontological question regarding space.**—The several possible answers to this question have been indicated above. The question takes these forms : Is space then really a *thing* existing objectively and independent of minds, as we commonly suppose it to be (and as assumed by the intuitionist theory above). Or is it only a form under which we represent things in our minds, but which is without any extra-mental existence (as according to the *à priori* theory above) ?

Is space a real thing which would exist even if there were no other things to fill it, and no mind to perceive it ?

(1) It may be held that space as we have it present in thought (our idea of it), is a copy of a real thing existing outside and independent of all thought. Realism says that it is such—that extension *in* space is a real attribute of things ; and that space itself therefore is something real containing all other things *in* it, but itself independent of them, so that, if things were annihilated, space would still remain the same. And it endeavours to establish this conclusion by the distinction between primary and secondary qualities of things, giving up the secondary ones (colour, touch, taste, smell, *etc.*) to mind, but holding that the primary ones, (*viz.* extension with its different forms) are in external things just as they appear in our consciousness. Though there is no light, nor colour, nor sound in the external world, yet there is extension (in length, breadth and depth), form (as straight, round, square, solid), and motion, with direction and distance in space. Now, if these relations have real

existence, space must be real. Space therefore is an objective something, within which other things are contained. Dualism and materialism both accept this *realistic* view (see intuitional perception of space, above).

(2) But it may be supposed that space, as we know it, is only a form under which mind necessarily pictures and conceives external things, and has no existence outside of the mind which conceives it. For the thinking principle, in order to think things, must represent them as existing external to itself and to one another, and must represent them as having different forms, magnitudes, and distances from one another. Hence representation of things as things in space, is a condition of the possibility of concrete representation in thought. Therefore the tendency to represent things under the form of space is inherent in the nature of concrete thinking itself, because it is a form necessary to all concrete thinking—it cannot form concrete representations of things in any other way. It is not necessary, therefore, to suppose that space, as we think it, is a thing existing outside of our thought. It is a part of our thought itself. To think things as concrete realities, is to picture them as existing side by side, independently of one another and of the thinking mind, and therefore under the form of space. Our idea of space must correspond, indeed, to something in the things and their relations, but can have no resemblance of kind to anything extra-mental. We are not in space, but space is in us. Phenomenalism and idealism accept this view.

Thus some go so far as to say: "space is only an unavoidable illusion of our consciousness or of our finite nature, and does not exist outside ourselves; the universe is both infinitely small and infinitely great." But it is going too far to speak of it as an illusion. Even if we do construct it within our minds, yet the order in which we view things in space is not arbitrary, but imposed upon us by something in the objective nature of the thing themselves, and must *correspond* to that objective something in things, even though there should be no resemblance of kind. Thus the order of letters on the written page corresponds to the

Or only a form under which mind necessarily represents things, and not any thing outside of mind,

Being only a condition inherent in the nature of thinking itself

Nevertheless order in space is not an illusion, but corresponds to something in the nature of things.



relations of the ideas in the minds of the writer, though there is no likeness of kind between them. :

Difficulty of explaining the idea of time.

**Time.**—The attempts to explain time correspond to the above theories of space. The empirical explanation amounts merely to this: We experience events as occurring successively, and learn to remember past events and to anticipate future ones, and thus to distinguish between past events which *are* no longer; present ones which *are*; and future ones which *will* be. Then we form by abstraction a general notion of things as emerging from the future, manifesting themselves in the present, and disappearing into the past; and this is our idea of time.

Is the idea derived from experience?

The objection to this experiential account is that it involves the vicious circle; it assumes that we first understand our successive experiences as successive, and advance from the idea of succession thus acquired (it is supposed) to the idea of time. But the truth is, we cannot have any understanding of succession without already having the idea of time. For isolated experiences however numerous would not give succession. Succession implies change, and change implies continuity of changing states, and this implies a permanent something which undergoes changes of state, and at the same time continues to exist through all changes of state—something which changes and yet remains the same (something which *endures*). This complex and seemingly contradictory notion of continuous change contained within reality which is permanent, is the essence of the notion of time. And it is difficult to understand how such a notion could ever be arrived at by any addition of, and abstraction from sensations imposed from the outside. Therefore the thinking principle must supply the notion from within itself, *à priori*. But how can it find in itself

Or applied by the mind to experience?

Time is change against a

the above two constituents which are essential to the idea of time, viz., the permanent ground and the changes through which it passes? The answer is that the thinking principle in order to understand time must be aware of itself as something permanent and of its own activities and experiences as changing states of itself. It is by thus conceiving itself as something permanent which lives and realises itself through a life of change, that it attains an understanding of time. And thus, finding the notion in itself, it applies it to other things, and understands them as existing and changing in time.

In what does the reality of a thing consist?

### § 16.

#### *Substance.*

**Substance** is that which possesses some degree of independent existence of its own, and preserves its existence by reacting on, and resisting other things. This power of self-preservation constitutes the *essence* or *reality* of the thing (what makes it to be a thing) and manifests itself in the different effects which the thing produces by reaction on other things. And the powers of reaction which thus manifest themselves in producing effects in other things, are known as the qualities or properties of the thing; and are represented in terms of the effects which they produce. Thus when a thing has the powers of occasioning in us the sensations of colour, smell, taste, weight we say that it has the qualities of colour, smell, etc. Hence qualities are said to be *inherent* in, or to constitute the nature of the thing; because they are the different ways in which the self-preservative power, which is the real essence of the thing, manifests itself outwardly. And the substantial thing itself is considered to remain essentially the same through successive changes of state and activity, because the power of self-preservation which is its

In its being something which preserves its own existence by reacting on other things to realise and preserve its own existence.

essence, remains the same ; and merely changes its mode of reaction, *viz.* according to the nature of the external forces against which it has to preserve itself.

In what then does the reality of material things consist ?

Thus, in the case of *matter*, a piece of sealing wax is at first red and hard and stick-shaped ; but, if we heat it, it becomes soft, and can be moulded into any shape we like. If we heat it still more, it becomes liquid and flows like water. And if we heat it still further, it becomes dissipated into vapour, smoke and dust. Nevertheless we know that, inspite of all these changes, nothing is lost ; whatever form it may take, the substance still preserves its own existence—even though disintegrated into atoms, and scattered in air, earth, and water—only changing its modes of reaction as its circumstances change. Thus we speak of solids, liquids and gases as different forms of one *material substance*.

In their resistance to pressure.

In what does the reality of mind consist ?

Again, in the case of *mind*, we experience an endless stream of states passing through our minds, day after day and year after year—states of feeling, thinking and willing. Yet we feel that we ourselves remain the same identical person through all these changes. This is because the changes are of our own making ; in them we are merely modifying our own activity of reaction every moment, to be in keeping with our incessantly changing environment. This means merely that we are applying our own fundamental energy of self-conservation and self-development, to the changing circumstances in which we are placed. And this is equivalent to saying that we are *conscious of ourselves as reality* (according to the above definition).

In its own energy of self-conservation and self-development.

The question of identity—

It has often been regarded as a question of much difficulty, how our *self*, or any other reality, can be considered to remain the same thing through successive changes of state and activity. But the difficulty disappears when we consider that outward changes of quality and state do not imply any

change in the *essential* nature of the thing. Its power of self-preservation remains the same through all outward changes, though its outward manifestations change according to the outward circumstances against which it has to preserve itself. Our changes are phenomena or manifestations of ourselves, and succeed one another under the form of time; but we who make the changes are above the changes we make, and therefore in some sense, above time. *Our successive actions are but self-modifications, to suit different circumstances, of the one fundamental energy of self-conservation.*

How can a thing remain the same through many changes?

### Problems connected with Substance.—

But with regard to substance various questions present themselves of much philosophical moment; and these, as usual, fall under the two heads of *epistemological* and *ontological*. Thus

Questions regarding reality.

(1) There is especially the *epistemological* question: How do we obtain our idea of substance? Do we first perceive matter to be substance, and then infer that mind is such also? Or do we first perceive mind to be substance, and then infer matter to be such also? Or do we simultaneously perceive mind and matter both to be substances?

How do we get the idea of reality?

If we understand substance in the above sense (*viz.* as something permanent, which preserves its own continued existence by reactions varying in form according to the external circumstances with which it comes into relation)—then it seems to follow that we can be directly conscious of substantial reality only in ourselves, and by our own self-consciousness. It is often assumed, however, that we are directly conscious of external things as substance; and that such things as a lump of clay or a particle of sand may be taken as type of substance (realism). A little reflection however shows the fallacy of this. We know such things only through successive and accidental sensations. In order to think them as substances, we have to supply the idea of substance from within our own heads; and think of it as

Do we perceive reality in other things and apply the idea to our-

Or do we perceive it in ourselves, and apply the idea to other things?

something behind the sensations, having the property of occasioning the sensations in us. This idea, therefore, must be got from some other source than the external things themselves. Besides, the above view would involve the absurdity that we first perceive other things to be realities, and then infer ourselves to be such—that we know our own permanence and reality only by inference from that of other things, which is surely an inversion of the truth. And further—

The nature of objective reality, the question of one and many.

(2) There is the *ontological* question which underlies all theory of the world: How many ultimate substances are there? Are there many? Or are there but two? Or is there only one? Is *pluralism*, or *dualism*, or *monism* the true theory of substance? And if we conclude that there can be but one ultimate substance, we have still to ask what that one substance is. Is it matter (*materialism*)? or spirit (*idealism*)? And supposing that there is but one substance ultimately (*monism*), how has that one reality evolved itself into this world-system of many things? And if there are many self-existent realities (*pluralism*), how have the many come together and become co-ordinated into this one world-system? *In short, if there is but one, how has the one become many? If there are many, how have the many become one? What is the true relation of the one and the many?* This is in fact the deepest question of metaphysic.

Hence three hypotheses of substance.

### § 17.

#### *Causality.*

The history of the world is a series of changes.

The world is a system of things interacting with one another in space, and thereby producing changes which follow one another in time,—making the world as a whole to be a moving equilibrium of many parts, adjusting and re-adjusting themselves to one another and to the whole.

What then makes things to change?

One of the fundamental questions of philosophy therefore is: *why* and *how* does one thing give rise to change in other things? As to the *How*, the common answer is, that it is by exercise of *causality*, or causal energy. But the nature of causality is one of the most difficult problems. The question, like so many others, is partly *psychological*: How do we get the idea of causality? and partly *ontological*: What is causality in itself, outside and independent of our idea of it? Or what is it in one thing, that produces changes in other things? In this case, the ontological question may be considered first, because it partly contains the other. Hence

What is causality?

And how do we get the idea of it?

**1. As to the objective nature of causality.**—(a) The common way of thinking about it is, that there is something seated and latent in things which may be called *power*; that, under certain circumstances, the thing *exercises* its power, and power when exercised becomes *energy* (lit. a working from within); and it is the nature of energy to pass over from one thing into other things and produce changes in them, and in so doing it is called *force*. Thus when we are at rest the causality latent in us is potential, and called power; when we put forth our power to set a ball rolling, we are exercising energy, and our energy manifests itself in motion of our limb and thereby of the ball; the force of one ball communicates itself to another and this transference of moving force from one thing to another is called causality. But this is only a verbal solution; power, energy, force and transference from one thing to another, are just what need to be explained. Hence

Causality sometimes described as power, energy,

And passes out in the form of force.

(b) Physical science, not being able to find a more adequate definition, may set aside the idea of force, and remain satisfied with saying

But causality sometimes described as motion and

tendency to motion,

And change explained by transference of motion from one thing to another and one form to another,

From molar to molecular and vice-versa.

But some say, nothing is known of causality except uniformity

that causality is simply *motion*, or tendency to motion—whether of a thing as a whole, or of its component molecules—which, when not repressed, leaves one thing and passes over into other things, and produces motion in them, molar or molecular; so that the motion which passes out of one thing re-appears in another thing without any loss of quantity. Thus causality is simply the transference of motion from one thing to another thing—the cause was motion contained in one thing and the effect is the same motion (so to speak) which has disappeared from that thing and re-appeared in another—all changes in nature consisting of transference of motion from one thing to another.

Thus when a rolling ball makes another ball to roll, this is transference of *molar* motion from one body to another. When a burning house communicates its fire to another house, this is transference of *molecular* motion from one thing to another. And when the finger pulls the trigger, the molecular movements of brain cells and nerves pass over into the molar movement of the hand and the spring, and that again passes into the molecular movements of combustion, and these again into molar movement of the bullet. Thus physical science may drop the idea of forces, and reduce all causality to transference and transformation of motion.

But this affords only an apparent explanation of causality. Why, when one body ceases moving, does another begin to move? This is the real question. And it makes it impossible to explain interaction between mind and body. How can body act on mind, and mind on body?—seeing that all the processes of body are modes of motion, while consciousness is not.

(c) Hence the sceptic may maintain that the above explanations are superficial and insufficient; and draw the conclusion that we cannot get any explanation of causality at all—that its real nature

is unknown and unknowable. All that we can know regarding events, is the order in which they occur in our experience. The idea of causality and force arises in this way: We find in our experience that whenever a particular event or combination of events occurs, a particular other event always follows. Hence antecedent event and consequent event become associated in idea; and when we experience or think of the former, we think of the latter also, and expect that it will follow. And we express this expectation by calling the antecedent events, *causes*; and their uniform consequents, *effects*; and calling this relation of invariable sequence, *causality*. Thus, by the *cause* of an event, we mean merely an antecedent event, or combination of events, upon which that event always follows; and we call this uniformity of succession which we find among events, the uniformity of nature, and law of causality.

of order  
among  
events,

Sceptical  
view of  
causality,

Causality to  
us is only  
uniformity of  
nature.

When, in our experience of event *A*, we have found that it has always been followed by *B*, we associate the two in idea so that we cannot think of *A* except as being followed by *B*, nor of *B* except as being preceded by *A*. And this habit of thinking produces the belief that *A* is always followed by *B*.

This, then, is the extreme empirical answer which is at the same time that of the sensationist and sceptical school—Hume, Mill, etc. This view, therefore, is satisfied with the fact that one event *is* always followed by the other. It avoids the question *why* it is so. That question, it says, is unanswerable, and must be given up. Nevertheless the *why* is the fundamental question of causality.

In itself it is  
unknowable.

(d) But there is also the idealistic view, founded on psychology of will, which endeavours to give the *why* also. This consists in showing that all change in nature must be like rational action, a means towards an end. For why should things change at all? Why should they not remain in

But others  
say causality  
is the self-  
realisation of  
the good—  
of the future  
present as  
idea.



For why  
should things  
change at  
all?

It must be

because there  
is good to be  
attained,

And every  
change must  
be a re-  
adjustment  
of the whole  
for the  
purpose of  
realising  
a good.

All causality  
therefore is  
the realising  
of a future  
good working  
in the present  
as idea.

And every  
change in  
part is a re-  
adjustment  
of the whole,

eternal rest? It cannot be a matter of chance or blind necessity. There must be a reason for it. It must be because there is something incomplete, imperfect and unsatisfactory in their present state, and change must be a struggle towards a better state. This implies, then, that all change is towards an end or purpose, and consists in escaping from one condition in order to attain a better one. But all anticipation of the future, all discrimination of worse and better, is a process of thought implying the presence of idea. Therefore all change is prompted by thought, and is the realising of idea, plan or purpose; and this is equivalent to saying that all energy of change is ultimately mental energy, or will-force realising idea.

And this psychological explanation is itself further explained by a philosophical one. Every change is a re-adjustment of the whole universe, required by the plan or idea of the whole. We are apt to think of one thing as being itself sufficient to cause another, and that another, and so on; as if things were all isolated units, each independent of every other, but capable of producing an effect on another without any co-operation of the rest of the world. This would be extreme *atomism* and *pluralism*. But if things were thus isolated by their nature, it would be impossible to understand how there could be any reciprocal causality of one upon another at all, and how there should be any order and co-ordination in the world at all. The truth is rather that the world is a system, that all things are correlated to, and dependent on one another reciprocally as parts of one whole—factors of one all-embracing system—and every change in any one is correlative to changes in all the rest.

*It follows, then, that an act of causality is not the work of any single thing by itself, but is a re-adjustment of the whole world-system, and is felt through the whole—just as the slightest movement of any point of our own organism, e. g. the lifting of a finger, requires a re-adjustment of the whole body. Thus, when a change in *A* causes, as we think, a change in *B*, the cause is not really *A*, nor any change in *A*—that is only the *occasion*—the cause really lies in the unity and plan of the whole world—which requires the change—the absolute idea or good.*

## 2. As to how we obtain the idea of Causality.—

(a) Here also there is a realistic way of thinking, according to which we get our knowledge of causality directly by seeing the working of causality in the external world. Thus the common-sense realist will say: we can *see* that motion, both molar and molecular, passes over from one thing into another thing, and this is causality.

How the understanding of causality is obtained—

Realistic explanation,

(b) And here again we may notice the view of the sensationists who point out that we do not really see anything passing out of one thing into another, but find in the course of our experience that certain events and combinations of events are always followed by certain other events, and this is all that we mean by causality.

Sensationist explanation,

(c) But rationalistic thinkers point out that these explanations deal only with the phenomena, or outward appearances resulting from the exercise of causality, not with causality itself. We see changes going on in the external world, but we cannot understand them as effects of causes without already having the idea of cause to apply to them. Where then do we get the idea? We must find it in our own self-consciousness before we can apply it to other things. The truth is that we are conscious of causality whenever we put

Idealistic explanation—

That all change must have a reason for it, and the reason must be the attainment of a better state.

Therefore  
causality is  
the force of  
good realising  
itself.

forth voluntary effort to control and concentrate our own thought ; regulate thereby the working of our voluntary muscles ; and realise our ideas by producing changes in external things. For all voluntary effort is the working out of a desire, the overcoming of a want, the realising of an end or good ; the self identifies itself with a future good present in idea ; and the action is the realising of its idea—the working out of idea into actuality. Thus we get the idea of causality from ourselves in the exercise of our own will-power in realising our ideas ; and draw the inference by analogy that all the causality in nature is the putting forth of energy for the overcoming of defects, and realisation of ends—that the evolution of the world is thought realising itself—the self-realisation of absolute idea.

It follows that if the world be one organic whole, then every change that takes place is a re-adjustment of the whole world to meet some passing need, promote some end and good. The change takes place because it is needed for the purpose of the whole. This is the meaning of causality and change.

## VI.

### POLARITY OF KNOWLEDGE.

#### § 18.

**Correlative aspects of reality.**—In trying to conceive the world as a whole, we find that our ideas of it fall asunder into pairs of contrasted alternatives, theses and anti-theses, or complementary aspects of reality, each of which suggests the other by *dialectic* necessity, and combines with the other in one more complex conception. Such dialectic contraries are the following :—

Correlativity in our conception of the world—

Complimentary ideas.

#### 1. *Subject and Object.*

Philosophy is thinking, and thinking involves two terms or poles :—(a) It implies a *subject* which thinks, a thinking principle or mind. But as all thinking is thinking about something, *i. e.* requires material on which the activity of thought is exercised, therefore (b) it implies an *object* or something to be discriminated and understood by the thinking subject. Thus we can neither imagine a subject, or thinking principle, without an object for it to think ; nor an object (or world) without conceiving a mind or subject as thinking it.

Polarity of subject and object in thought.

No object without subject, nor subject without object.

Now this correlativity of subject and object may be conceived as only a *logical* necessity merely, or as *ontological* also. Thus

Are they necessary to each other only in thought, and not in reality ?

(1) It may be maintained that the correlativity of subject and object is necessary *only* within the sphere of our own finite thought—it may be true that we cannot conceive of anything without conceiving it as being thought by some mind, and conceiving it in terms of thought ; but it does not follow from this, that nothing can exist without being thought

The materialistic view.

—that there cannot be a world without a mind to think it. This is the view of *materialism* and also of *scepticism*—that there can be a world without any mental power to think and will it into existence—that thought is only an accidental and occasional product, not essential to the world which produces it.

Or are they necessary to each other in reality also ?

(2) It is possible, however, to maintain that the correlativity of subject and object is true *ontologically* as well as logically—that what thinks and what is thought are contained (so to speak) each in the other, so that (in the absolute) neither can *be* without the other. There can no more be an actual world of reality without thought to be aware of its reality (or to which it is real) than there can be actual thought without an object for it to think. Being, to be real, must be being *for* and *by* itself ; in other words, it must make itself to be what it is, or be what it is by its own nature and own effort, and therefore must be *aware* of itself and *think* itself. Thinking must rise out of the nature of that which is thought, and that which is thought must be such as to make, itself to be thought. Things are the materials of thought, and exist for the sake of thought ; thought is what gives existence, co-ordination and meaning to things. Each is correlative to the other. Hence the power which evolves the world must have not only the potentiality of self-evolution but also that self-awareness inherent in its nature—it must be essentially mental—mind must be the beginning as well as the end of the world-process, both the power which produces and the resultant which is produced. If it had not been the nature of what is real to be aware of itself, and think itself—if the power of thinking had been at one point,

The idealistic view—

That it is the nature of real being to be aware of itself ?

If so, subject and object, thinking and what is thought, will be identical in the absolute.

so to speak, and reality at another—then thought could never have reached reality at all, nor could reality have entered into thought. The something which thinks and the something which is thought—subject and object—must ultimately be identical (or correlative). This has been called the philosophy of *identity*, i.e., of the ultimate identity of subject and object in the absolute. It is also the view of ideal realism or objective idealism.

Ideal realism.

### § 19.

#### 2. *Relative and Absolute—Conditioned and Unconditioned.*

Further, we find from our experience that we ourselves are *relative* and *dependent* beings. Our coming into existence, and the character and continuance of our existence, depend on conditions lying outside ourselves, and the relations in which we stand to them—on our parents and friends, on the air, water, food and warmth which nature affords, and all the materials and forces of nature. In short we are entirely dependent on persons and things other than ourselves. This is expressed by saying that we are *relative* and *conditioned* beings—dependent on relations to other being and conditions in which we are placed. And we see that the same holds true of all the things contained in the world of our experience—they are all dependent and conditioned.

Polarity of absolute and relative.

Experience gives a world of relative things.

But when we think of things as relative and conditioned, this thought forces upon us dialectically another thought which is its correlative, complement, and necessary filling up. Indeed the idea of relative and dependent in the above sense, is only half an idea—we cannot think it without

But things can be understood as relative only by filling in the idea of absolute.

Absolute and relative, inseparable as factors of one concrete idea.

filling in the other half, and combining the two in a higher idea. We cannot think of things as *relative* without thinking at the same time of what is *absolute*, or above all conditions and independent of all relations—what is independent of everything else, but on which everything else depends—what conditions all things without being itself conditioned, and causes without being caused—what is self-existent, or contains all the conditions of its existence within itself. This is what we understand by the *absolute* or *unconditioned*. Finally, these two correlatives, thesis and anti-thesis, relative and absolute, combine themselves together in a higher synthesis, the idea of the *infinite*.

The word 'absolute' means literally, what is left *loose* or *free*, and is therefore independent; whence it has been used in metaphysic to mean what has the grounds of its existence within itself, and therefore does not depend on anything else—what is *self-existent*.

### § 20.

#### 3. *Phenomenon and Noumenon.*

Polarity of phenomenon and noumenon, as distinguished by Kant.

**Phenomenon.**—The word 'phenomenon' is both passive and middle participle of the verb *phaino*, I show or exhibit; and may therefore mean either what is exhibited or manifested by something, or what exhibits or manifests *itself*. In epistemology, however, it has been used to mean, not that which manifests itself but the *manifestation* which something makes of itself, the outward appearances in which it reveals itself to the thinking mind. Now the *appearances* in which things manifest themselves to us, are the feelings and sensations which they occasion in us—it is either *in* or *through* these that we know both ourselves and external things. We know our ownself as

Meaning of phenomenon.

what has feelings, sensations and thoughts ; and we know other things as what limit and resist ourselves, and thereby occasion feelings, sensations and thoughts in us. Thus feeling and thinking are phenomena in which the mental reality manifests itself to itself. Sensations are at the same time phenomena in which external things manifest themselves to the thinking self. These, then, are the *phenomena*, or manifestations of things ; and if it be said that we know only phenomena, this really means (as Hume showed) that we know directly only feelings and sensations (which is sensationism and agnosticism).

The phenomena through which we know things are really our sensations—

Phenomenalism.

The word is often loosely used in physical science, however, for the processes of nature considered, not as represented in possible sensations, but as going on objectively and independently of the mind to which they appear—a sense opposed to its proper sense of appearance.

**Noumenon.**—But appearance implies something which appears, phenomenon implies its correlative *noumenon*. The word 'noumenon' is participle of the verb '*noeo*,' I think and discern by power of reason (*nous*, reason). It means, therefore, what is *thought* as distinguished from what is seen and touched—what is perceived to be real and necessary by the inward eye of the mind, as opposed to phenomena which are present to external sense. Hence, in metaphysic the word has been used to mean what we discern and understand by the eye of reason to exist behind phenomena or outward appearances, as being necessary to supplement and explain them. Thus noumena or things supplied by power of thought, are the substantial realities which we must think of as existing behind appearances. Thus while phenomena enter into experience in the form of sensation and feeling, substan-

Meaning of noumenon.

What we do not perceive but supply by necessity of reason.



What things  
are noumena  
merely?

tial reality (in the case of external things at least) has to be filled in by rational thought as necessary to explain and understand phenomena, and is therefore *noumenon*, or object of reason, as opposed to *phenomena* or objects of sense.

What then are the noumena which reason fills in to complete its conception of the world as a whole? This question has been disputed, but it is safe to cite as noumena the ideas of the infinite, absolute, unconditioned, God. It has sometimes been assumed that our ideas of self and external world are only noumena—that they are not perceived but filled in by thought. But these are rather facts of direct experience—the one of self-consciousness, the other of external perception.

Difficulty of  
this distinction.

Indeed there is a difficulty with regard to this distinction. It assumes that the reality and the phenomena or manifestations to which it gives rise, are so separate from each other that we can perceive the one without the other. But where and how far is this the case? May not reality be known *in* and along with its manifestations? It must be so in the case of some reality at least, otherwise we should never have any idea of reality at all. Thus in the case of self, at least, we must be aware of reality and manifestation as two factors of the same thing. Indeed, it is in and by its manifestations of itself, that a thing makes itself to be real. How then can manifestation be known to be manifestation merely, without knowing the reality which manifests itself?

## § 21.

### 4. *Finite and Infinite.*

Polarity of  
finite and  
infinite.

The ideas of *finite* and *infinite* correspond closely to those of relative and absolute, conditioned and unconditioned, being the same object of thought regarded from different points of view. What then is really present to our mind when we use the word *infinite*?

The word "finite" means having a *finis*, *i. e.*, an end, limit or boundary. Infinite means therefore what is not limited or restricted by anything either in, or beyond itself. But we can conceive limit in two senses—limit to greatness, and limit to smallness. Hence we speak both of the infinitely great and the infinitely small—unlimited addition, and unlimited subdivision.

Meanings of the words.

But the question of the real content of the idea of the infinite, and how we get the idea, is one of much difficulty. Experience does not give us anything that is infinite or absolute. The idea, then, would seem to be supplied by the mind itself; in other words, to be a noumenon.

Origin of the idea.

(a) Empiricism however, says no to this; there is nothing in the idea that is not got from experience. Experience, to be sure, gives nothing really infinite, but that is not necessary; the so-called idea of the infinite is not an idea of anything *positive*—anything that can be represented before the mind as what it really is; it is only a *negative* idea. And by having a negative idea of a thing, they mean thinking a thing not by what it is, but by what it is not; the infinite to us is merely what is not finite—beyond this negation of limits, it is an idea without content. And we arrive at the idea, such as it is, chiefly by thinking of space and time, and in this way: We conceive a particular space by conceiving another space beyond it, and bounding it. This other space also, if we try to conceive it clearly, must be conceived as bounded by another space beyond it, and so on indefinitely. Thus we go on thinking space beyond space, limits beyond limits; but find, by trying again and again, (*i. e.*, by experience) that we can never arrive at any space so great that there is not more space beyond

The idea of the infinite and its origin according to the empirical view:

Ideas can contain nothing more than what is given in experience;

But infinity is not given in experience;

Therefore it  
can be only  
a negative  
idea.

it making it to be finite. Hence we abandon the attempt to find a limit, and think of space as something having no limits. This gives us a complex idea which contains within it (1) an idea of a certain extent of finite space, and (2) an idea of this finite space as being capable of being extended without reaching any limit. But this absence of limit is an empty notion, mere vacancy of thought. So it is with the infinitely small; we can go on subdividing space and time without ever reaching any limit, and come to think of them as having no limit of smallness—but the idea is mere negation, nothing positive. Therefore the idea of the infinite contains nothing beyond what is given in experience.

The idea of  
the infinite  
according to  
the rational  
view :

(b) Rationalistic thinkers consider the above negative account of the infinite to be unsatisfactory. It is true that we cannot arrive at any positive idea of the infinite by mere addition and division as above. Yet the infinite and absolute are the most truly positive of all our ideas. Negative ideas consist in thinking, a thing, not so much by what it is, as by what it is not; but this implies a positive conception of the something which it is not, just as much as of what it is. We cannot say that the infinite is not such and such without having an idea of what it is. Indeed, finite and infinite are factors of one and the same concrete idea, each necessary to fill up and complete the other. Experience, to be sure, gives us directly only finite things, and we can experience no limit to the multiplication and subdivision of finite things. But, for this very reason, the thought of finite and dependent things necessarily supplements and completes itself in our minds, by raising the thought of a power which evolves and supports finite things, without being ever exhausted in so doing, having nothing within nor without to limit

The most  
positive of all  
ideas ;

Finite and  
infinite con-  
tained each  
in the other.

its productivity. This notion, then, of endless production springing out of inexhaustible productive power, is our real idea of the infinite.

But this notion of productive power is essentially positive, because while we think of all things as its products and as limiting one another, we do not think of them as limiting the power out of which they spring. That power therefore is thought of as above limits, *i. e.*, infinite.

The presence  
of productive  
power seen  
in what it  
produces.

## VII.

### THEORIES OF THE WORLD.

#### § 22.

The purpose of epistemology is to determine how much we can hope to know regarding the world.

Both Hume and Kant went too far on the negative side ;

For in spite of them, it must be possible to construct a positive conception of the world without contravening the laws of reason.

**Different theories of knowing lead to different theories of what is known.**—The object of epistemology is to ascertain the conditions on which the possibility of knowledge depends ; and thereby determine from beforehand, how much we may reasonably hope to know regarding the world and our own position therein, in order that we may not be misled by unreasonable dogmatism into assuming more than we can really know. Hume had restricted knowledge within the sphere of possible sensations, making the world to be to us nothing but a permanent possibility of sensations. Kant showed that Hume had gone too far in his scepticism, and had ignored the function of reason in knowledge : and attempted to determine more accurately the respective functions of experience and reason. But it has been found that Kant's own conclusions were too sceptical ; and since his time efforts have been made to determine the right medium between dogmatism and scepticism. Now we have found that philosophy begins with the world of particular things, and rises from it to the possible hypotheses that can be formed of the world of reality as a whole ; and then proceeds to determine which among them is the best working hypothesis for the interpretation of experience and the regulation of life. And in so doing it has to determine which is most consistent with the conditions of possible knowledge and the requirements of reason. In other words, it has to consider the possible theories of

reality from the epistemological point of view—to determine which of them is free from all self-contradiction, and lies most within the sphere of possible cognition and approximate demonstration. Thus far metaphysic is subject to criticism of knowledge. Every hypothesis must strive to justify itself from the standpoint of epistemology.

And these theories of reality may be divided into two classes according to the theories of knowledge assumed in them. Thus we may divide them into *realistic* hypotheses, founded on a theory of knowledge which departs but little from the dogmatism of popular belief, and *idealistic* hypotheses, which assume a more radical criticism of thought, Hence—

### § 23.

#### A. *Realistic Hypotheses.*

**Realism** is the view which maintains the existence of reality external to, and independent of all mind, such as would exist all the same whether there is will to support it and intellect to think it, or not. The word is used, however, in two ways, (1) in ontology to express the principle, that extra-mental reality *exists* apart from all question as to how it is perceived, and (2) in psychology to express a theory as to how the existence of extra-mental reality is *perceived*, *viz.*, a particular theory of external perception. Thus—

1. Realism in the *psychological* sense assumes, not merely that in external perception we are directly conscious of something distinct from, and independent of ourselves, as the ground of our sensation; but also that we are directly percipient of what that something is, *viz.*, that it is something having the qualities of extension, impenetrability, hardness, weight, form, etc., inherent in it; in other words, that we are directly conscious of it as

Philosophy has to consider the different possible hypotheses of a world.

Some hypotheses claim to be realistic.

But the word realism may be used in different senses. Thus

It is used in a psychological sense, that things are in themselves just as they appear to our senses in external perception.

of *material* nature, and part of a real material world. Thus it assumes that the external things which occasion our sensations correspond in all essentials to the ideas which we form of them from our sensations—that ideas are copies of things just as a portrait is a copy of its original. Thus—

This includes popular realism.

(a) In its *naïve* and primitive form, it assumes that all our sensations are copies of qualities seated in external things—that perception gives us, colour, temperature, taste, smell, as existing in things just as they are in the sensations themselves ;

And scientific realism.

(b) In its modified and more *scientific* form, it accepts the distinction between primary and secondary qualities, *i. e.*, admits that such qualities as heat and cold, colour, taste and smell, are only sensations of mind, and nothing more ; but maintains that the primary qualities, such as extension in space, impenetrability or resistance, movement, position, shape, size and the like, are just the same in things as in our ideas of them—so that ideas are copies of things in respect of primary qualities at least. Thus though there can be no light nor sound nor smell in the external material world, there are extension, magnitude, shape, solidity, and the like. And these are the essential qualities of matter. Thus our faculties reveal to us not mere phenomena or appearances of things, but the real *onta*, or “things in themselves,” as they actually exist.

Realism in perception claims for itself the evidence of consciousness, and

This realism claims for its support not only the authority of consciousness—that we are *conscious* of perceiving, and therefore perfectly *certain* that we perceive, external things to be of this nature—but also the authority of “common sense,” which Reid understood in this way : Our natural faculties and instincts assure us that external things really

exist just as they appear to us. But our natural instincts have been implanted in us by the author of our nature, and He, being perfect and all-powerful, could not have given us instinctive beliefs that would deceive us. Therefore, whatever our natural instincts impel us to believe, must be true. This theory of perception has been called 'natural realism.'

common sense, and that of the veracity of our nature.

2. But realism is held also on *metaphysical* grounds; and metaphysical realism goes much farther than is warranted by the realistic theory of perception. The latter theory warrants us merely in saying that there is a real world existing out side of, and independent of our own minds (as opposed to Berkely and others, who said that the world of things is only a system of ideas in our own minds and in the mind of God). Realism grounded on *metaphysic* consists in affirming the actual existence of real things, external to and independent of all mind,—independent both of the finite minds of men and of the universal mind of God (whether they be supposed to be self-existent, or to have received their independent extra-mental existence by divine creation).

Realism is extended also to the ontological sphere,

Assuming that the physical world has absolute existence independent of mind,

Thus realism in ontology may take the form of ontological *dualism*—it may affirm that external and internal perception are equally authoritative; and that, as the former shows matter to be real substance independent of mind, so the latter shows mind to be a real substance also, independent of matter; so that there are two mutually independent substances. Or it may take a *monistic* form, denying the authority of internal perception, and affirming matter to be the one and only ultimate substance, and mind to be only an occasional product of matter (materialism). Or it may take the form of *pluralism*, and assume the reality of many substances, all independent of one another and all antecedent to mind, the latter being only their occasional product. Hence—

And giving three hypotheses of the world.



It includes therefore the doctrine of two absolutely independent substances, spirit and matter.

(A) **Dualistic Realism.**—This hypothesis affirms the reality of two ultimate and independent substances, *viz.*, spirit and matter and claims to be, in this, supported by realistic psychology which gives, it is claimed, a direct perception both of self as spirit and of an external world as matter.

Hence the doctrine of the absolute duality of soul and body.

And here the question arises as to the relation of soul and body, mind and matter. What must soul be in order that it may be capable of having sensations produced in it by matter? And what must matter be in order that it may be capable of having movements impressed on it by soul? It is generally admitted that, in order that one thing may produce effects in another thing, the two things must be of the same kind, *i.e.*, must have the same common essence so as to have at least some attributes and activities in common—otherwise nothing could pass over from the one into the other. Only like can act upon like. But if soul and body be two opposite and independent substances, what can they have in common, and how can they act on each other?

Difficulty involved in this doctrine :

For it is known now that all the processes of the material world are modes of motion, *i. e.*, of material particles changing position in space. That things act on one another, means merely that motion is transferred from one thing to another without ever being lost. But consciousness is not any motion of particles in space. How then can processes of body, which consist in motion of particles, produce processes of mind which (as admitted by the theory) has nothing in common with body and moving particles? And, again, how can thought which is not itself motion, produce motion in body? We can understand how flowing water, or expanding steam can make things move,

*viz.*, by transferring their own motion to the things. But thought has no motion to transfer; how then can it move body? And further, if they are different realities, how can the states and progress of the one have any likeness to, or even correspondence with, those of the other? How could mind know anything about matter? How, as Berkeley inquired, could it even know the existence of matter?

That of explaining the interaction and correspondence of mind and body.

The philosophy of the 17th century was much occupied with this question of the relation between mind and body, excited by Descartes' dualistic theory. Descartes himself assumed it possible for them to act on each other—even though they are of opposite substances. His followers, however, drew from his premises the conclusion that they could not; and sought to explain the correspondence of mind and body by other hypotheses. Thus—

Exhibited especially in the Cartesian school,

With its attempts to overcome the difficulties of dualism by—

(1) Malebranche adopted the theory of *occasional cause*: God is present and active everywhere, and it is the omnipresent power of God that makes sensations arise in the mind when things act on the body; and makes movements arise in the body, when the will to move rises in the mind. The brain-process in the one case, and the volition in the other are not really causes, but only the *occasions* on which God exercises His causal power to produce sensations in mind and movements in body.

The hypothesis of occasional causes,

(2) Leibnitz proposed the theory of *pre-established harmony*: It must be admitted that mind cannot act on body, nor body on mind. How, then, do they come to correspond? In this way: the absolute power, which in the beginning gave existence to minds and bodies, so constituted and adapted them at the beginning that every change of the one should correspond to a change in the other—sensations and volitions in the mind to movements in the body—so that mind and body should keep time together without there being any causal connection between them—like two clocks set to the same second.

And that of pre-established harmony between mind and body,

The theory of Leibnitz.

The simile of  
the two  
clocks—

For, if we compare mind and body to two clocks we can see that there are three ways in which clocks may be made to keep the same time—corresponding to three conceivable hypotheses of the relation between mind and body,—

(i) There may be some bond of connection between their machinery—their hands may be joined together by a chain, so that the one pulls the other, and makes it correspond with itself. This is like the dualistic theory of *interaction* between mind and body.

(ii) Or some one may come every now and then and adjust their hands, and thereby make them correspond. This will be like the above theory of *occasional cause*.

In what  
different  
ways can  
they be made  
to corres-  
pond?

(iii) Or the clock-makers may have constructed them so skilful at the beginning that, when once set to the same time, they go on keeping the same time by the excellence of their internal mechanism, without there being any link of connection between them, and without any one having to come now and then to adjust them.

Now it is this last supposition, Leibnitz thinks, that represents the real relation of soul and body. There is no direct connection between them; each goes on developing by its own internal 'mechanism' independently of the other. Yet they have been so adjusted from the beginning that every change of the one corresponds exactly to a change of the other, without any interaction or adjustment being needed. This is *pre-established harmony* of soul and body.

Hence  
Hume's  
theory that  
real causality  
is unknow-  
able.

But this difficulty of explaining interaction between things led at last to Hume's sceptical theory regarding causation—that nothing whatever can be known about causation beyond the experienced fact that certain events are always followed by certain other events—the uniformity of nature. This Scepticism, he thought renders the above hypotheses unnecessary.

It is necessary, however, to distinguish two kinds of dualism—

Two possible  
theories of  
dualism.

(i) *Absolute* dualism: it is possible to hold that there are two absolutely self-existent realities,

and that the world results from their contact and interaction, *e. g.*, that spirit and matter, a good principle and an evil principle, are equally self-existent, and that the world-process results from the conflict between them—the opinion of the Platonists and Zoroastrians.

(2) *Dependent* dualism : it is possible to hold that finite mind and matter are distinct and independent substances, but that neither of them is self-existent—they have both received their existence from a higher self-existent power, which is itself mental, *viz.*, God. This form of dualism, by making the one absolute to be mental, approximates, it can be seen, to idealistic monism—making mind to be the absolute as idealism does, but giving temporarily absolute existence to created finite minds and created matter.

One reality  
self-existent,

The other  
created and  
temporary.

(B) **Materialistic Realism**—Some get over the difficulty involved in dualism of mind and body in this way : Internal perception is not to be trusted ; rightly understood, it reveals mind only as a series of conscious states, and tells us nothing about a substance peculiar to mind. External perception, on the contrary, reveals to us the material world as substantial reality. There is only one substance, therefore, and that is matter ; and the series of states which we call mind, are only states or functions of matter—and obviously of the organised matter which we call brain.

That there is  
but one self-  
existent rea-  
lity, and that  
that  
reality is  
matter, and  
mind is only  
an accidental  
product of  
matter,

Mind is therefore a function or product of brain. It is the brain that feels, thinks and wills. It is not necessary to suppose that the conscious states which we call mind, really *cause* anything ; it is the material brain that does all the work. Consciousness springs from, and accompanies certain kinds of brain-work, but has no effect on that work,—just as the shadow accompanies the moving train, but exercises no effect upon its movements. All causation is physical, *viz.*, a transference of

An occasional  
function of  
the brain.

Mind there-  
fore only a  
passive pro-  
duct, without  
any causal  
efficiency of  
its own,

Man is only  
an auto-  
maton.

motions from molecules to molecules. Consciousness is a by-product of the motions and mutual resistances of the molecules of the brain (just as flashes of light are struck out by friction of grinding machinery), but makes no difference to the motions which produce it. Therefore we are merely conscious *automata*—complicate, self-regulating systems of mechanism. It is the physical forces of nature—chemical, thermal, electric, molar—that do all the work of life and mind—mind being only a series of conscious states, and these being only occasional products of the friction of these physical forces, like light and heat. As the light of the flame is a resultant of the electric vibrations of the ether, so the mind is nothing but a resultant of the protoplasmic movements in the ganglionic cells.

But this view  
is inconsis-  
tent with the  
theory of  
energy.

The objection to this is that all these products of matter are themselves modes of motion; consciousness is not a mode of motion; therefore consciousness cannot be a product of matter. Vibrations of ether are not light, and protoplasmic movements are not consciousness.

False  
analogies

An analogy so often drawn between the way in which the light of a candle is produced, and the way in which consciousness is produced—that as the oxidation of the candle produces light so the oxidation of the protoplasm of the brain cells produces consciousness—is a fallacious one. The light is not in the candle but in the mind. What belongs to the candle is merely the rapid movement of molecules disintegrating and integrating again. But the light is a form of consciousness and can be produced only by and in mind. The combustion of the candle is only the occasion of its production. Where there is no mind there is no light.

Mind is  
really an  
active power.

And further, we find that, contrary to this theory, the presence of consciousness *does* make a

great difference to the working of the body; mind controls the body; life-work could not be the same if consciousness were to cease; the great works of mind must be produced by a power infinitely deeper than the rushing collision, and friction of atoms.

And there is the epistemological difficulty—the paradox involved in materialism—the matter as we know it, is only a construction of our own intelligence; so that the theory makes mind to be produced by that which mind itself produces. If we admit that matter is directly known to us only as the ground of our sensations, then materialistic dogmatism falls to the ground. (It may be observed that, though materialism is often classed under monism [as above] because its atoms are supposed to be all of the same substance, it should rather be classed as pluralism [the following head] because the atoms are supposed to exist in absolute independence of one another). Hence—

Matter in the form in which we think it, is itself a product of mind.

(C) **Pluralistic Realism.**—We have considered realism (1) as a theory of two substances—spirit and matter, each external to, and independent of the other; and (2) as a theory of one substance, *viz.*, matter, of which mind is only an occasional and non-essential product. It is possible, however, to conceive an indefinite or infinite plurality of substances, each of them a unit capable of existing independently and absolutely by itself, apart from all the rest. It is impossible, however, to form a consistent theory of the world on the basis of this hypothesis. Substances thus self-existent and independent from the beginning, would have nothing in common, and would be incapable of communicating with, and affecting one another; and therefore incapable of entering into co-operation with one another so as to constitute a unitary world-system. Each unit or real would exist only for itself, and would be practically non-existent to all the rest. These self-existent reals would be an

That there are many self-existent realities or substances.

Difficulty of explaining the world in this way.

Mythology rather than philosophy.

infinity of absolutes, each constituting a world by itself. Hence pluralistic theories have belonged to mythology rather than to philosophy.

Leibnitz attempted to explain it by his doctrine of monads,

Or quasi-self-existent spiritual essences ;

But was compelled to assume an ultimate unifying power which is the real self-existent.

Herbart, by his 'reals,'

Reduce to monism by Lotze.

Nevertheless some thinkers have attempted to construct a theory of the world on a modified and *quasi*-pluralistic basis. Thus Leibnitz supposed an all but infinite number of "monads" or units of real being, each independent of, and incapable of being affected in any way by the rest ; but each capable of developing an infinite number of states and activities from within itself, and of becoming conscious of them, and thereby rising into being self-conscious soul. But how could such a plurality of unconnected units come to co-operate together, and build up a world ? To explain this, Leibnitz had to suppose that the monads are not literally self-existent, (as consistent pluralism would require), but are emanations from a single ultimate self-existent reality, *viz.*, God ; and that God, in giving them existence, determines also from the beginning, all the internal developments of every monad, so that they all go on developing in correspondence, like clocks set to the same time ; and thus, by this pre-established harmony, constitute a single world-system, though there is no causal communication between them. This, however, is falling back from pluralism to monism.

The "realism" of Herbart is a modification of Leibnitz's monadism, in which, however, the monads or "reals" are supposed to interact and modify one another directly, which is inconsistent with their independence as self-existent "reals." Lotze modified the system further, reducing the monads to be ultimately only modes in which one absolute reality individualises and manifests itself, thereby reducing pluralism back into "spiritualistic monism." William James has attempted to revive

pluralism, but in a form more mythological than philosophical.

It may be observed that materialism, in its common atomistic form, may be regarded as a form of pluralism also. It supposes an infinite number of atoms, and that each atom is self-existent and self-sufficient in itself; and assumes nevertheless that these originally independent atoms come together of themselves, interact on one another, and by their interactions build up an orderly cosmos.

Materialism in its atomistic form is pluralism.

## § 24.

### *B. Idealistic Hypotheses.*

**Knowledge based ultimately on self-consciousness.**—Deeper criticism of knowledge had led many to the conclusion that the realistic theory of matter as antecedent to and independent of mind is erroneous. For (i) *external* perception gives directly nothing more than the existence of a power other than ourselves, which is the ground of our sensations—what the reality underlying that power is in itself can be known only by interpretation of sensations. And (ii) our conception of reality is derived solely from *internal* perception of self as a substantial reality, and applied to the external world, the ground of our sensations, by analogy; and the only causality that we really know, is that which we are ourselves conscious of in determining the order of our own thoughts and movements.

That there is but one self-existent reality, and that it is a mental power.

External perception gives only an unknown ground of sensations.

Only self-consciousness gives reality directly.

From this the conclusion may be drawn, that all reality and causality are ultimately mental and that the existence and evolution of the world is the product of a mental power, working out an end or purpose. It follows that the realistic assumption of substance existing anterior to, and independent of mind, and of mind being a product of what is not

And what it gives is a reality which, consists in putting forth energy for realising end or good.



And there is reason to believe that the absolute is a power which realises a good present as idea, and is therefore mental.

mental is unwarranted. Mind could not have emerged at the end of the evolution-process (as realism assumes), if it had not been present as a self-realising power at the beginning. Mind is not a causal product of what can exist without mind ; but whatever is, must have been evolved by mind itself as a means required for its own satisfaction or self-evolution. This then is *'idealism'*, because it makes the world to be the working out of an idea or plan ; and *'spiritualism'*, because it gives the primacy to mental substance and power.

Two possible theories,

Two forms may be distinguished. Granted that the absolute reality is mind and that the world of finite thing rises out of mind, and is upheld by it, still there are two ways in which the world may arise. We may think (1) that the existence of a world is not essential nor indispensable to the life of the absolute mind, but that mind produced the world by an act of free choice, at some particular point in its own eternal existence ; or (2) that the production and maintenance of a world is an essential part of the life of the absolute mind. This distinction gives *subjective* idealism which makes the existence of the world of things to be contingent on an act of choice ; and *objective* idealism or *ideal realism*, which makes the evolution of the world to be contained in the nature of the absolute, and therefore antecedent to all choice. Hence—

Subjective idealism and ideal realism.

That the absolute mind is antecedent to, and independent of any world of things.

(A) **Subjective idealism.**—We know the world outside of us only as something that occasions sensations in us ; but in self-consciousness we know self as a substantial reality, which is conscious of itself remains essentially the same through successive changes of state and activity, reproduces the past and anticipates the future in idea, and puts forth causal energy to realise its own ideas and perfect itself. And this is the only substantiality and causality that we know or have any right to assume the existence of. We

must conclude, therefore, that mind is the only substantial reality; and that all the causality in the world is conscious mental power realising design; and that the world of nature with all its contents is a system of ideas, substantialised and sustained by volition, and contained within one universal consciousness. "The whole choir of heaven and furniture of the earth, all the things that compose the mighty frame of the world," have no existence apart from mind which evolves and supports them. "They subsist either in the minds of created spirits, or, failing these, in the mind of one eternal spirit." The existence of extramental matter, therefore, is a superfluous assumption of dogmatism. There is nothing in the world but mind and products of mind, which, being consciously sustained by mental power, may be called ideas. Mind is not in the world, but the world is in mind. Therefore external perception by finite minds is not a discerning of anything absolutely different from, and opposed to mind, as dualism assumes; nor is it the matter of the brain becoming conscious of itself, as materialism assumes. It is finite mind becoming conscious, from its own finite point of view, of what is contained in infinite mind—a "seeing of all things in God," and looking into the contents of the divine mind, or God communicating his own ideas to us. (Malebranche, Berkeley).

But the world of things has no existence except in the thought of the absolute mind, and therefore as a world of ideas.

External perception consists in reproduction in our own minds of the ideas of absolute mind.

When we perceive a tree, "the real tree existing without our mind is truly known and comprehended by (that is, *exists in*) the infinite mind of God." Every unthinking thing is, from the very nature of its existence, perceived by some mind; if not by a finite created mind, yet certainly by the infinite mind of God, "in whom we live, move and have our being."

The doctrine of Berkeley.

Why subjective.

This then is idealism and may be called subjective. The term subjective is applicable especially to ideas, feelings and desires which rise and pass away in the individual mind, apparently without being subject to any law or necessity. Therefore, if idealism assumes that its world of ideas and finite minds is not necessary to the perfect existence of the creative power, but is only an after-thought or occasional choice, which may be reversed at any point of time, it may for this reason be called subjective.

Another form of subjective idealism—that things are only ideas in finite minds and may differ in different minds.

It may be observed, however, that the term 'subjective idealism' may be used also for a somewhat different way of thinking. It may be assumed that the world of concrete things has no existence outside of the finite consciousness of the individual, and that there is no need of a universal consciousness to support them. Thus it may be thought that the world of things is the resultant of laws, forces, tendencies, which meet and produce their concrete result only in finite consciousness—that, outside of it, they are only abstract forces or reasons, not concrete things,—and that the only real things are the conscious ideas which they give rise to in finite minds.

The theory of knowledge worked out by Kant may be accused of leading to this conclusion. If all the forms and categories of knowledge—space and time, unity and plurality, substantiality and causality—exist only for finite consciousness, as Kant teaches, then the world "in itself" outside of finite minds, will be only abstract force or tendency, and nothing concrete.

That the absolute mind makes itself to be mind by thinking into existence a world of things.

(B) **Objective idealism : ideal realism.**—

But idealism may be understood in a more *objective* sense, and in such a way as to transform and absorb realism into itself. There cannot be mind without thinking, and there cannot be thinking without a world as material of thought. Therefore absolute mind, to be mind, must think, and must be such as to evolve from within itself (because it is absolute) the world which it thinks. It can assert its own reality as concrete

mind (spirit) only by evolving and projecting itself, so to speak, into a world of things in which it thinks and lives: and the thoughts of absolute mind are not a copy and reproduction of an external world as the thoughts of finite minds are, but are themselves a world of reality. Therefore a world of finite things is not an occasional and arbitrary production of absolute mind (subjective idealism); it is in eternal thought and production that its life as concrete spirit consists. Eternal production is the medium in which absolute mind lives and works eternally, and makes itself to be concrete spirit. This view, then gives a substantial reason for the existence of the world of things, *vis.*, as the material, so to speak, of God's life and activity—that in and through which He raises himself, by an eternal creative process, from being abstract potentiality or power, into being concrete self-contained self-conscious reality, as absolute spirit. The existence of a world, therefore, is not a subjective desire or arbitrary choice of God, but a part of God's own being.

And thereby realising itself as absolute spirit, which is the unity of subject and object in one universal consciousness, and will.

For it may be objected to subjective idealism that it fails to give a satisfying reason for the existence of the world. Thus we know nature as a complicate system of things and forces, co-operating together for the evolution and support of order, harmony, life and mind. But if mind could exist by itself without any world in which to think and work (as subjective idealism assumes), it is difficult to see what use and need there could be for that complicate system of means which we call nature. And further, it is difficult to understand the complicate mechanism of nature as consisting merely of the action and reaction of conscious ideas with one another.

Hence the world of nature is a product of divine power, but logically antecedent to, and necessary to divine thought.

And the world of things, is a necessary part of the life of the absolute.

Which gives relative reality to things.

Hence God is both the beginning and the end of the world.

Hence a world of things is necessary to God because it is by evolving a world that he makes himself to be self-conscious, self-controlling spirit. Hence the absolute must

We must regard self-consciousness, therefore, as resulting from the effort of being to complete and perfect itself. And we must regard the apparent mechanism of nature as an intermediate stage of activity, at which the absolute power evolves the means and materials of its own thought and activity ; and raises itself through successive stages to full consciousness of itself, first in the finite minds of men and finally in the universal self-consciousness, within which all finite activities and consciousnesses are contained as subsidiary factors. This, then, gives *relative* reality to finite things.

Thus regarded, mind is both the beginning and the end of the world-process ; as beginning, it is the ultimate reality and power which evolves all things as means to end ; as end, it is the universal self-consciousness which is the product of the self-evolution of ultimate being—"the one wide will that closes all." Hence, as has been said, "whatever is actual is rational (*i. e.*, every efficient working power is the working out of an end or purpose), and whatever is rational is actual" (*i. e.*, whatever is essential as means towards the highest end or good of the world, operates as a force towards the realisation of that end).

It seems, therefore, that Berkeley and some subjective idealists go too far in making consciousness to be ultimate and *self-existent* in itself, without means or materials—making subject to be possible without object, thinking without anything to think about, willing without willing anything. Rather self-consciousness must be a product of self-evolution. But evolution means the unfolding and drawing out of what is contained potentially in the absolute being. And as self-consciousness is mind fully realised, it cannot be evolved from what is not already potentially mind. We must, therefore, conceive ultimate being as something whose nature

it is to complete and perfect itself by realising its own highest potentiality; and we must conceive its highest potentiality to consist in "being for self," or self-awareness and self-control—in becoming aware of itself and freely controlling its own activity, which makes it to be *actually* what it was *potentially*, *viz.*, self-conscious spirit.

be conceived  
as realising  
its own  
nature in one  
universal  
life,

We are not to suppose, however, that the evolution of the absolute reality into subject and object, and thereby into concrete spirit is a process beginning and ending in time. Rather the absolute consciousness is realised at every moment. But as the absolute is infinite potentiality, its realisation is never exhausted. Therefore the conscious life of the absolute is eternal. But it is not in time nor space; rather time and space are in it.

And realising  
his own spi-  
ritual infinity  
in a process  
which is  
above time.

This system was worked out dialectically by Hegel in his "Logic." It is accused of being pantheistic. Thus it makes God to be at first merely abstract power or being, and makes the world of concrete things to be the system of intermediate means through which the absolute raises itself into being self-conscious spirit; and makes finite minds to be individualised factors of the one self-realising energy of God. This is like making God (*theos*) to be (*pan*) all. It is idealism or spiritualism, because it makes real being to be essentially mental, and the world to be the realising of end or idea. It is objective, because it makes things to have real existence as forces or tendencies anterior to, and independent of consciousness (logically at least), *viz.*, as its grounds and conditions. This makes it to be at the same time realistic idealism, or ideal realism, by making the world to be, not an arbitrary choice, but a necessary factor in the life of God. But for this same reason, it is not really pantheism, which, in order to make God to be all, takes away all reality from finite things. It is rather *panentheism*, (not 'God is all things,' but 'all things are in God') because, though it makes all things to be in God, it gives them relative reality and independence as factors in the life of God, and materials of God's thought. This then gives 'reality' to finite things which pantheism takes away—not absolute reality, such as pluralism and dualism give, but relative reality as finite and relative things.

Is this  
pantheism,  
'God is all'?

Or panenthe-  
ism 'all  
things are in  
God'?

Difference  
between the  
two.

## **PART II.**

### *THE WORLD.*

#### VIII.

#### PROBLEMS OF NATURE-PHILOSOPHY.

##### § 25.

#### **The Mental and Material Spheres.—**

The world appears to experience as a plurality of separate things in space and events in time.

We distinguish between the sphere of mind with its problems of soul and of knowing, feeling and willing and their products, and the sphere of matter with its stars, suns, planets, rocks and seas, and plant and animal organisms. With regard to the material world, philosophy, starting from the results of science, has to consider the elements of which it is composed, and the forces which work in these elements, and cause their integrations and disintegrations, and build them up into atoms and molecules, and these into solar systems and living organisms. In other words it must seek to understand how the physical world has come to be what it is, and to be capable of supporting life and mind as we find it to do.

And the problems of the physical world include especially these fundamental ones—

Is it then really a Many, or a One, or a One in Many?

**(A) The problem of unity and plurality, the one and the many.**—The material world is made up of innumerable atoms and molecules and complex things, and these are undergoing perpetual change—combinations, disintegrations and recombinations. The question therefore is forced upon us : is the world a conglomeration of elements which have come together by chance, without any unity of plan and purpose (pluralism) ?

Or is the world, in spite of the plurality of its elements and parts, a single unitary system regulated by one fundamental power and pervaded by a single purpose and end (monism)? To experience, indeed, the world is many—an all but infinite plurality of things and contending forces; which points to pluralism. But it is possible that it is at the same time one—a unity in plurality. Thus

(1) If it can be proved that the ultimate substances which enter into the composition of the world (whether ultimately two as dualism says, or many as pluralism says) have independent existence of their own (*i. e.*, are not derived from anything higher than themselves); and if it can be proved that their coming together to form one world, has not been due to any reason regulating their movements, but from accident; and if it can be proved that it is equally a matter of chance whether they co-operate to produce common results, or conflict and destroy one another's results—if these things can be proved, then, there will be no unity, plan, or purpose in the world, and pluralism will be the true ontology.

Is it a conglomeration of self-existent units, without essential unity?

Which is pluralism;

(2) But on the other hand, if it can be proved that all parts and processes of the world are correlative to one another; and that a change in one thing is brought about by combined influences of changes in all the rest, and entails further changes of re-adjustment in all the rest, so that every change is equivalent to a re-arrangement of the whole—if this is so, then we shall have to conclude that, there is one ultimate reality underlying the plurality of the world; that all its processes are pervaded by one ultimate power, regulating the whole in living and moving equili-

Or is it the product of a single absolute power evolving a plurality of things and co-ordinating them into one system?



Which is  
monism.

brium, for the realisation of ultimate good ; and that the world is therefore a unity in plurality, a one in many like a living organism—in which case monism will be the true ontology.

Reason,  
thinking *a*  
*priori*,  
favours  
monism,

Now, when we compare these two rival hypotheses, our reason declares in favour of the latter as the more probable in itself, because it is the very nature of reason to seek for order and unity in plurality. And the results of the empirical sciences tend to confirm this preference of reason. This they do by showing that the things, forces, and laws of the physical world are made to co-operate towards common results, in a way which would not be possible had they been from the beginning absolutely distinct and independent. Such co-ordination and co-operation can be understood only on the supposition that they are so many applications of a single universal power, evolving all things for an end.

And this is  
on the whole  
confirmed by  
physical  
science,

Thus astronomy shows beyond doubt that all the bodies that build up the cosmos are of essentially the same substance, and are subject to the same laws of gravitation, and of thermal and electric motion and impact ; and that the forces manifested in their various motions are essentially the same in kind, so that each is transformable into another without loss of quantity ; and that all the bodies composing the physical cosmos act and react in moving equilibrium—that “no zephyr breathes, no wavelet ripples on the bank” but the movement reverberates through the whole cosmos.

And by biological science,

There can be no doubt, then, about the unity of the physical cosmos ; and biological science tends to confirm the same conclusion by showing reason to believe that all organic beings inhabiting the cosmos are of the same essence and origin, and subject to the same conditions and laws (as above).

And by  
metaphysic.

And in addition to these empirical considerations there is the metaphysical consideration already referred to. Realities having absolutely

independent existence would have nothing in common, and therefore could not affect one another causally, nor enter into connection with one another to form one world. Instead of one absolute and one world, we should have an infinity of absolutes and worlds, no one of which could know anything about any other.

But, contained within the physical cosmos, there is the world of mind. And the greatest problem of all is to understand the origin of mind, and its relation to the physical world in connection with which it manifests itself. Is mind derived from, and does it therefore belong to, the same system as physical and organic nature? Or is it something introduced from the outside—something in it but not of it? Are mind and nature correlative to each other in such a way that each depends on the other, and both develop together as necessary constituents of one organic system? Or are they independent and absolutely distinct in essence and origin, and have come into relation by accident? Or been brought together for a temporary purpose by a power acting from outside themselves? Here the hypotheses of *monism*, *pluralism* and *dualism* present themselves.

The chief difficulty is with regard to the opposition between mind and body, which has led some to dualism.

(B) **The problem of reality and the interaction of reals.**—Further, apart from the question of the unity or plurality of the world, there are questions regarding the constituents of the physical cosmos. Thus, there is the question of the various materials—‘*things*’ or ‘*reals*’—which, by their interaction with one another in space and time, make up the unity of the physical system. What makes a thing to be a thing? In other words, what constitutes the *reality* of a thing, material or mental, and enables it to remain essentially the same thing through successive changes of position in space, and of state and activity in time? This is the problem of *substance*, applied to nature, *e. g.*, whether the substance of nature (matter) is composed of indivisible and self-existent atoms,

What then constitutes the essence of a thing, and makes it to be a thing?

The problem of substance.

or whether atoms are themselves composed of more elementary substances.

What makes things to be co-existent in space or successive in time?

This again includes the question of the nature of *space* itself, or that which makes it possible for 'things' to exist side by side and interact 'mechanically'; and of *time*, which makes it necessary for the changes which they produce by their interaction to follow one another in succession, one passing away before another begins.

What makes things to change their relations to one another?

And this leads to the question of *causality* in nature, or what it is that makes things to *change* in form, position and relations: and to *interact* among themselves so as to transmit changes from one to another; and this includes the question of the nature of *energy*, or *force* with its various forms and laws such as motion and conservation.

What is the difference between physical and vital changes?

But nature contains living things, plants and animals; and this leads on to the difference between *mechanical* interaction of things on the one hand, and the processes called *vital* on the other—between *mechanism* and *organic life*—and to the all-important question of the *origin* of life.

What is it that controls the changes of things, and makes them co-operate in producing results?

(C) **The problem of the evolution of the physical cosmos.**—Finally, there is the great question of the power or powers underlying the changes going on in the world, and directing them so as to work out its evolution. (1) It is possible that the changes going on in the world are all fortuitous? and that we ourselves, and the world in which we live with all its species of plants and animals, are the product of forces working at random, without any controlling unity of plan? This is implied in *materialism* and *pluralism*. (2) Or are the changes which constitute the history of the world controlled by a universal plan or

Are combinations fortuitous?

purpose, which makes them all to be means towards the relation of proximate ends, and makes these again to be subservient to a single ultimate end. In this latter case, the world of co-existent things and successive events will be the 'unfolding' or 'evolving' of a plan or 'idea,' latent in the nature of the evolving power ; and everything in the world will be rational, *i. e.*, part of a plan ; and the world itself will be a unity in plurality—a *system*, as distinguished from a mere aggregate or conglomeration. This is idealistic or spiritualistic *monism*—that the world is made to be a unitary system by one pervading plan or idea.

Or are they regulated by purpose ?

The above questions, therefore, will together constitute the problem of *evolution*, mechanical or teleological. And connected with this is the question of the nature and origin of life—the differences between the purely physical processes of inanimate nature and those which go on in living creatures, plant and animal ; the question whether the vital processes are merely more complex forms of those same processes which go on in inanimate nature and are evolved from them ; or are of a new and essentially different kind (*viz.*, vital forces as distinguished from physical ones).

Is the history of the world a process of evolution of something higher from something lower ?

A distinguished physical philosopher (Du Bois-Raymond) has said that there are 'seven riddles of the universe,' which science and philosophy have failed, and probably will always fail, to solve. These are : the nature of matter and energy ; the ultimate source of motion ; the first beginning of life ; the cause of the adaptation of means to ends in nature ; the origin of sensation and consciousness, that of rational thought and its universal concomitant, speech ; and the possibility of free will. This list, however, may involve some repetition. Thus energy, motion, end and will may have ultimately the same origin.

The seven riddles of the universe.

## IX.

### THE WORLD OF THINGS OR REALS.

#### § 26.

#### *Reality : Substance and Attribute.*

The essence of a thing is its power of preserving itself and developing its own potentialities.

**Meaning of Reality.**—What makes a thing to be a 'thing' or 'real' is the property which it has of asserting, maintaining, and developing its own existence. Reality however is subject to degrees. We must distinguish between absolute reality and relative reality, and the different degrees of reality pertaining to relative things. Thus

Absolute reality.

(a) In the case of *absolute* or *unconditioned* being, its reality will consist in its being *self-existent*—its having the ground and reason of its existence within itself, and its exercising its self-existent power without being prompted by, or requiring the co-operation of, anything outside of itself, and thereby developing a world of conditioned reality spontaneously from within itself. It is, as it were, *causa sui*, its own cause, and will not be subject to conditions proceeding from any thing outside of itself.

Derivative reality of finite things and minds.

Therefore, if we reject dualism and pluralism, God will be the one absolute reality having unconditioned existence in his own nature, and giving relative or conditioned existence to whatever else exists. But if dualism or pluralism can be maintained, there will be two or many absolute realities.

(b) In the case of *relative* and *conditioned* beings generally—the reality of these will consist

in their power of asserting and maintaining their own existence, and developing the potentialities of their own nature in interaction with other finite things; but their natures and powers will not be self-existent in themselves but derived from the absolute; and will be various in kind and degree according to their place in the plan and purpose of the absolute whole. For the reality of a carbon atom, and the reality of the human soul, though both derived and conditioned, will be very different in degree and kind. This is because such things are derivative, and dependent on the absolute for the fact, form, degree and circumstances of their existence, and for the uses or functions assigned to them among the other finite things to which they stand related.

Derived from  
and dependent  
on the  
absolute.

Thus, in the case of an *inanimate* thing, *e. g.*, a stone, its reality consists in its power of resisting other things, so as to maintain its own form and position in place and time against the forces of nature, molar, chemical, thermal, etc. which are always acting on it, and tending to disintegrate it. In the case of a living *organism*, its reality consists in its power of not only resisting the outward forces of nature, but of appropriating and assimilating materials from nature for its sustenance and growth, and adapting itself to the changing circumstances of outward nature in such a way as to preserve its own integrity and life. In the case of *soul*, its reality as such consists in its power of thinking its present, remembering its past and foreseeing its future circumstances, and thereby consciously adapting itself to its circumstances and its circumstances to itself,—thus prevailing over the lower forces of nature, and making them subservient to its own preservation and self-development as a factor of the world-system.

The reality  
of inanimate  
things,

Of organisms,

Of minds.

But derived  
reality is a  
thing of  
degrees.

In what it  
consists :

Minerals,

Organisms,

Souls.

The reality of a finite thing, therefore, consists in its power of preserving and developing what is potential in its own nature, in interaction with other finite things. But its reality is relative and conditioned. The stone resists pressure and temperature for a time, but at last is overcome and dissipated into gases and dust, and loses its reality as a stone. The living plant and animal resists external forces, assimilates materials, grows and maintains its existence as a living thing for a time ; but at last its power of self-preservation and development is overcome, it dies, is dissipated into earth and air, and exists as a plant or animal no longer. And there is now good reason to believe that even the atoms into which all material things are capable of being resolved, are themselves not simple and ultimate as once supposed, but capable of being dissipated into some more elementary form of substance. The question whether mind or soul can be deprived of its reality as such, is the question of immortality.

Hence reality  
must consist  
of two fac-  
tors, sub-  
stance and  
attribute.

**Substance and attribute.**—The reality of a thing is thought by us under the form of *substance* and *attribute*. These are two correlative aspects of reality : we cannot think of it as substance without thinking of it as exhibiting its own existence in attributes, nor of attributes except as the manifestations of substance ; both ideas are necessary to make up one complete idea of a real concrete thing.

Attributes  
are essentially  
the  
powers of  
preserving  
and develop-  
ing itself.

(a) As to *attributes* : the attributes of a thing are the thing's powers of resisting, reacting, and thereby producing effects of various kinds in other things, in order to preserve and develop itself in its interaction with them. These powers (or rather this one power manifesting itself in different ways according to the different relations of the thing) constitute the *essence* of the thing, and make it to be a substance or reality. But when we think them in the concrete, we think them in terms of the effects which they occasion in other

things, as, *e. g.*, we represent things in terms of the sensations of colour, taste, smell, etc., which they occasion in ourselves.

Thus, a material thing has the power of resisting other things, and excluding them from a certain portion of space, and this power manifests itself in the qualities of impenetrability, hardness, etc., to perceiving minds; also, power of reflecting different waves of light into the surrounding atmosphere, which enter our eyes, and produce sensations of red, blue, green, etc., which we call the colours of the thing; powers of affecting chemically the tongues and nostrils of animals, and producing sensations of taste and smell; of vibrating, and communicating vibrations to the atmosphere, which strike against the tympanum of the ear, and produce sensations of sound, and so forth. Living things, in addition to the above material attributes, have the powers of appropriating other material substances for their own sustenance, while some of them, chiefly animals, have the power of moving about spontaneously in space. And mind has powers of remembering past events, and foreseeing future ones, and thereby adapting itself to future circumstances. This, then, is what is meant by the *attributes* of a thing.

- \* (b) As to *substance*: attributes have no existence by themselves—they are essentially manifestations of power; the redness of the rose, the sonority of the bell, are their powers of exciting in us certain sensations of colour and sound; but there must be something which exercises the power, gives connection and identity to all its manifestations, and thereby makes the thing to be the same through long periods of time. This is what we mean by *substance*—that which *stands under*, and supports the qualities (or rather, that which exercises the powers), and makes them to be permanent. Its essence, however, is really its one power of self-preservation, working in different ways according to its own nature and the different things (or other powers) which come into relation with it.

And manifest themselves in the effects which they produce in other things,

As sensations in minds.

Which are also thought of as the qualities of the thing

Substance is that in the thing which exercises the power of self-preservation,

And of developing the potentialities latent in it,



As in the  
case of mind.

Thus, in the case of mind, the *mental* substance or soul is that which, in preserving itself, exercises the powers of feeling its present relations, remembering its past ones, and foreseeing its future ones, and thereby adapting itself to its circumstances so as to preserve and develop its own reality.

The question  
has been  
much debated  
how a thing  
can continue  
to be the same  
substance  
through  
many  
changes.

To be sure, the substantiality of mind has been made a subject of controversy. Some have argued that mind is only the series or aggregate of states of consciousness, and, as such, only a passive product, possessing no causal reaction of its own, no causal efficiency, no *power*, and therefore no *substantiality* at all (materialism, sensationism). Of the many objections to this view, the fundamental perhaps is that, if we did not get our idea of substantiality and causality from our consciousness of our own self as reality, we could not get it from any other source. Our possessing the idea of substance is proof of our being ourselves substance. Hence we must understand

Hence finite  
things have  
relative  
reality,  
which con-  
sists in their  
fitness to ful-  
fil their func-  
tions in the  
system of the  
whole.

**The world as a system of 'things' or 'reals' of different degrees of reality, manifesting themselves in different ways.**—By a system is meant a plurality of parts, each having *relative* reality of its own, and all acting and reacting on one another in such a way as to constitute one moving and self-regulating and self-preserving equilibrium. Thus we may take as the type of a system, the living organism of plant or animal—a multiplicity of atoms, molecules, cells and complex organs, each of which has a function to perform in relation to the whole; and all of which in performing their functions, co-operate harmoniously to support the life and unity of the whole. Every atom of carbon, every molecule of water, every muscle-disc and neuron of the brain, and every

complex organ such as heart, lungs and limbs, has its work to do as a factor of the whole ; its reality consists in its power to fulfil its function ; and by fulfilling it, it contributes to the order, stability and reality of the whole as an organised unity or system—a unity in plurality.

We have reason, then, to believe that the world as a whole is a system in the above sense—that nebulae, suns, planets, living beings and minds, are correlative factors of one whole, each of which fulfils a purpose as a factor of the whole, and contributes to the end and purpose which gives unity to the whole.

For if the world be a system or whole, it follows that all things are co-ordinated as means for the good of the whole.

And this conception of the world as a system enables us to understand the otherwise inexplicable nature of power, and origin of energy. To say that the world is a system, is to say that its evolution is subject to plan and purpose—that the process of the world is the realising of an idea or Highest Good. It follows that the energy which evolves the world is the energy of idea realising itself—an end or good transforming itself from the form of abstract potentiality into concrete actuality. A thing acts because there is *need* for its action—whether the need manifest itself subconsciously as in the forces of inanimate nature, or is regulated by conscious foresight as in rational will.

Which again leads to the idealist principle, that all causality is the realising of idea.

### § 27.

#### *Temporal and Spatial Order of Reals :*

##### *Space and Time.*

**Relations of space and time.**—The 'reals' which constitute the world of nature, exist side by side with one another in *space* ; and the changes which they undergo succeed one another in *time*. Nature, therefore, has temporal and spatial order.

The world consists of things in space and events in time.

(a) As to *space* : nature is outwardly a system of material things manifesting the attribute of

Things hold one another in equilibri-

um, and  
thereby  
appear under  
the form of  
space.

impenetrability, and thereby mutually excluding one another, and existing external to one another, with different positions and relations. This mutual exclusion and externality of things in nature, with the relations of position and distance which follow from it, makes things appear to us as existing in space. It makes us think of space as an eternal something independent of things, but in which things are contained, and which makes things assert their existence by occupying and excluding each other from portions of it, and changing each other's positions in it. It follows that the interactions by which things manifest their existence take the form of resisting, pushing, and impelling one another from without, necessitating continual change of relative position and order. In other words, the form of spatiality (subjection to the conditions of space) makes their interaction to appear outwardly as *mechanism*.

Changes determine one  
another's  
order in  
succession,  
and thereby  
appear under  
the form of  
time.

(b) As to *time*: the absolute power cannot exhaust itself in a mechanical equilibrium of unchanging things—a lifeless world of space alone. It manifests itself in the working out of an eternal purpose, to which the world of things in space are only the means. As means, therefore, they are subject to incessant change, and the world appears to our thought as an essence which works out its own concrete reality in a series of continuous productions,—all rising out of one another in succession, according to the principle of causality. This continuous evolution of things by the working of one absolute power makes time. And we perceive and estimate time by viewing the successive states against the permanent background, so to speak, of the reality which evolves and manifests itself in the successive states.

Hence space and time differ in this: that in space, things are able to exist simultaneously, outside and alongside of one another; in time, one thing passes away before another comes into being, as if to make room for it. And what cannot find a place for itself (so to speak) as a thing in the order of co-existence in space, appears as an event in the order of succession in time. But the order of successive events in time is constantly changing the order of co-existent things in space; and it is this reciprocity of succession and co-existence—of permanence and change—that makes the world to have the form of time as well as of space.

Hence contrast between space and time.

If it be asked why change should enter into the world-system at all, this is at least a partial answer: that the power which evolves it is infinite, and therefore inexhaustible; and therefore cannot express itself adequately in a changeless world of co-existent things in space. God requires an infinity of time, as well as of space, to realise his own nature in.

Co-existence and succession both necessary to express the infinity of God.

**The nature of time: its metaphysical implications.**—Time and duration in time is one of the most mysterious and significant things that enter into our experience. Shakespeare felt the mystery of “the dark backward and abysm of time”; and Carlyle frequently reflects on its significance: “the illimitable, silent, never-resting thing called Time, reeling, rushing on, swift, silent, like an all-embracing ocean-tide, on which we and all the universe swim like exhalations, like apparitions which *are*, and then *are not*.” Indeed if we could understand time, this would carry us far towards an understanding of the world. And we can understand at least this much regarding it: When we think time, we represent to ourselves an unbroken flow of changes rising out of something which remains essentially the same through all

The mystery of time.

Time, the unity of two apparently contradictory components,

identity and  
difference—

changes. For time implies unbroken continuity of change, and continuity implies the unbroken identity of the ultimate reality which produces, underlies, and undergoes the change. A plurality of unconnected things would not give time, and a break in continuity of succession would mean a cessation of time. Time supposes a continuous flow of changes from one form to another, and their continuity of flow supposes them to be connected together into one unbroken system by one permanent reality underlying and working in them all.

What makes  
time?

Thus if the world were perfectly still and changeless, there would be no time. If worlds were continually ceasing to exist and new worlds continually springing into existence, there would be no time. What makes time this : that the world, while undergoing incessant change, yet continues to be the same world. When we say that the coal strata were deposited millions of years ago, we mean that the world is the same world as then, but has undergone so many changes as fill up millions of years. When we think of a person as a hundred years of age, we think of him as having undergone changes, but as remaining the same identical person through them all. The idea of time therefore involves that of duration : an idea of something which *endures* and preserves its own identity through successive but continuous changes.

Permanence  
and change.

Hence  
essence and  
phenomenon.

Time, therefore, contains two apparently contradictory factors, permanence and change ; and implies that these together make up one concrete whole of time, and thereby a world. We may therefore speak of the changing events as 'phenomena' and of the underlying reality as 'essence' or 'thing in itself.' (We must not ascribe change to the essential reality itself because that

would mean *absolute* change, *i. e.*, a passing of that reality into nothingness, and thereby a cessation of time altogether).

It follows that time really implies the unity and permanent identity of the world-essence. In other words, it requires us to think of all things and events as being contained in one absolute or whole of reality. In thinking time hurriedly we find it convenient (as in the case of space) to think of it as a real something by itself, existing independently of all changing things and events and containing them all in some way within itself. But this convenient working notion of time is only a notion of the *possibility* of that unity of permanence and change (in which time really consists) abstracted from the concrete fact itself. Real time is contained in the continuous process of the world's evolution, and has no existence apart from it.

Therefore time implies unity of essence underlying the world of things and events;

**Origin of the idea of time.**—The flight of time is forcibly suggested to us by many things in our outward experience. The ruined castle makes us think of the long succession of events with which it has been connected—the festivals, sieges and political and social changes that have come and gone while it has remained essentially the same. The funerary urn turned up by the plough suggested to Sir Thomas Browne "The drums and tramlings of three conquests," and the many changes that had passed over England since that urn was buried there. But external experience cannot be the original source of the idea of time. The essential element in it is the notion of something which changes and yet remains essentially the same. Now, though directly conscious of the existence of external things we are not directly conscious of, but merely infer, the continuance of external things. We must get the notion of permanence underlying change from something of which we are directly conscious. There is nothing that we can obtain it from except our own self. We are conscious of our personal identity through

How do we form the idea of time?

Whence do we get the elements of permanence and change?

Is it a necessary idea?

a series of years and changes. And yet it can only be suggested and exemplified by our consciousness of self; because the idea of time extends far beyond the range of any finite self. Indeed the idea itself is, as *à priori* thinkers say, a *necessary* one, *i. e.*, one which the thinking principle, (impelled by its experience of the continuity of self) must supply by its own constructive power, before it can explain and understand its experiences, and form a conception of the world in which it lives.

Is it only a form under which mind thinks things?

**The subjective theory of time: subjective idealism.**—Kant undertook to prove that time is made by thinking. It is only in and by the act of thinking that events are drawn out into the order of succession which we call time; there is no time in the events themselves; thinking puts it into them, because they could not be thought in any other way than by being thus drawn out in succession, and viewed against a back-ground of permanence. Time therefore is only in our own thought—only *subjective*. But (*a*) events would not be events at all if they were not really and objectively successive; and (*b*) we could not understand how thinking could lay hold of events and make them to be successive, if it did not make the events themselves. Thus Kant's doctrine leads us back to the theory of Berkeley, that every mind makes for itself the world which it thinks (subjective idealism).

How it may be both mental in origin and objectively real.

We can avoid this subjective conclusion by supposing that the world is evolved by a single absolute *mental* power. For we can understand how absolute thought can impose on its production the form of time. And from the analogy of our own essential self we can understand the unchanging mental reality which forms the back-ground of change. But it is absolute mental power, and not the thought of every finite mind for itself, that evolves the world of phenomena in time (ideal-realism): and it is only the one absolute reality that remains the same under the flow of things which appears to us as the world.

## X.

### THE WORLD OF REALS AS A SYSTEM OF MECHANISM.

#### § 28.

#### *Matter and Energy: Nature as a System of Things in Space.*

**Material things as reals.**—Experience compels us to divide 'reals' or things into two classes, *viz.*, material and mental, according to the attributes in which the 'power' which is the essence of each manifests itself—the one essence manifesting itself in what we call material phenomena, the other in mental. Here we have to do with material things.

In what does the reality or substantiality of all things consist?

What then is *matter*? We consider that substance to be material, which manifests itself in the attributes of filling, and resisting motion through space—*i. e.*, in impenetrability and inertia, and the other attributes which rise as consequences out of these.

In what does the reality of matter consist?

Thus, a material body (*a*) has for its *primary* qualities the attribute of *resistance* or *impenetrability*, which means that it occupies a certain extent of space so as to exclude all other bodies from it; and that of *mobility* or capacity of motion, which means that it can shift or be shifted from one part of space to another, in consequence of its changing relations to other things in space; but (*b*) when it is compound, or made up of many atoms, it manifests also *secondary* qualities such as colour, sound, smell, temperature, which arise from the relative positions, arrangement and motions of the

Or what makes matter to be matter?

Its qualities primary and secondary, of which the most fundamental is occupation of space.



thing's component atoms and molecules, and the effects which they occasion in organs of sense.

Hence the essence which makes matter to be matter is occupation of space.

Thus, heat consists objectively in motion of the constituent atoms of a material aggregate, tending to its disintegration. Colour arises from the arrangement of its constituent atoms, which determine its power of reflecting different waves of ether into the eyes. Smell arises from its disintegrating slowly in the atmosphere, thereby giving forth effluvia which affect the olfactory surfaces. Taste arises from its power, when dissolved in liquid, of affecting chemically the cells of the tongue.

And this is a mode of energy.

Hence all the properties characteristic of matter as known to us, arise out of its occupying space, and the positions and movements of its constituent elements in space. And physical science reduces all the qualities of matter ultimately to these fundamental ones of inertia and motion. Hence the great questions of physical philosophy—

For energy takes two forms :

**Matter and energy: energy of resistance and energy of motion.**—We always think of matter in connection with energy. What then is energy? Every material unit manifests its own essential reality in two ways,—

Energy of resistance and self-preservation ;

(a) It resists everything else in order to preserve its own existence and its own position in space. This form of self-preservation is energy in the form of *impenetrability* and inertia ; which is immanent in the thing in the sense that it makes the thing to be a thing.

Energy of motion ;

(b) It tends to move through space so as to dislodge other units from their positions, and alter their arrangements and relations in space. This is energy in the form of *motion*, and when a moving thing by its energy of motion gives rise to change of position and arrangement in other

things, we call this *causality*, and say that the moving thing (or simply its motion) was the *cause* of the changes in the other things.

Yet we see that a material body may remain motionless in space *i. e.*, it may be without energy of motion. But the former kind of energy, *viz.*, energy of impenetrability and inertia, we find to be the very essence of matter—that which makes matter to be matter. Whence we must conclude that matter itself is a form of energy—*viz.*, energy manifesting itself in occupying and excluding other things from a certain portion of space. The latter form of energy, on the contrary *viz.*, that of motion has the appearance of being put into, or impressed on matter from the outside, and not to be essential to it in the above sense. The ball on the green, the boat on the river, remains motionless until the player puts motion into by striking it with his foot, or the wind inflates the sail. We have to consider separately, therefore, these two kinds of energy—the energy of *resistance* which constitutes matter itself, and energy of *motion* which seems to have been imposed on the units of matter from the outside, and builds them up into a world of things in space and time. Hence—

But energy of resistance is the essence of matter ;

As matter may have motion or be without it.

**The world as matter and motion.**—It was assumed from early times that the world is composed wholly of matter and motion, and that matter is composed of simple units called atoms. And hitherto philosophy of nature, in dealing with the history of the world, has uniformly begun with atoms and movements of atoms—in some cases assuming atoms and motion to be self-existent, in other cases assuming them to be created. And it has limited itself to tracing out the integrations and disintegrations of atomic bodies, and the

World explained by the mechanics of matter and motion.

mechanical laws according to which they proceed—trying to show, how, by their movements and impacts, they have produced *nebulæ* and solar systems, and finally organic bodies. Thus the world's history has been treated as if it contained nothing more than a continual re-distribution of atoms, and re-arrangement of their motions.

Hence  
triumphs of  
mathemati-  
cal sciences.

Thus, if we could suppose, as many have done, that the world begins with atoms arranged in certain ways, and some force that puts atoms in motion, and that the actions and re-actions of atoms among themselves are subject to unchanging laws,—then the evolution of things would be only a gigantic problem of mathematical mechanics. And the great mathematicians, such as Descartes, Newton, Laplace and Maxwell, have treated it as such, and indeed their calculations, so far as they have gone, have always been verified.

It is now pretty clearly established, however, that atoms are something very different from what these thinkers supposed them to be, and much of the old reasoning with regard to them can no longer be maintained. We have therefore to compare the old and new theories of atoms.

### § 29.

Meaning and  
origin of the  
atomic  
theory of  
matter.

**Original theory of matter and origin of the world: the atomic theory.**—How did people come to believe in the atomic theory of matter, and what did they suppose atoms to be? They saw that it is the nature of matter to fill space. Therefore perfect matter will fill a portion of space so completely as to leave no pores or empty spaces within it. It will therefore be impenetrable and indestructible (because what makes a piece of matter to be destructible, is its containing pores into which something foreign can enter to burst it asunder). Now if we examine a piece of ordinary matter, we find that it can be broken or cut into fragments, and these again into smaller fragments,

and so on. But we think that if we go on cutting or breaking long enough, we must come at last to particles that cannot be cut any further. These, therefore, will be particles of *perfect* matter, filling completely their portions of space, without holes or pores by which anything can penetrate to break them asunder. They will be *atoms*, *i. e.*, particles incapable of being *cut*—each being a *plenum*, or portion of space completely filled, and therefore impenetrable.

What atoms are supposed to be and why.

The theory that matter is composed of such indestructible particles was worked out theoretically by Democritus in ancient times (B. C. 420), revived and apparently demonstrated by Dalton at the beginning of the 19th century, (1808), and long accepted by physicists and chemists as final. And two hypotheses were upheld as to the origin of atoms, and therefore of matter :—

Democritus and Dalton.

(a) That atoms are *self-existent* and absolutely indestructible—each atom an absolute by itself independent of everything else, and existing unchanged and unchangeable from all externity ; which was the theory of Democritus and the older materialists ; and that

Atoms believed by some to be self-existent ;

(b) Atoms were brought into existence and invested with their extension and impenetrability by God Almighty through the word of His power, and have remained unaltered since the day of creation ; but, having been created, are therefore not absolutely indestructible, but may be annihilated by the same power which created them.

And by some to be created.

Hence motion is something superadded to matter. For atoms thus constituted will have in themselves no tendency to movement. It is the nature of an atom to fill completely a portion of space ; but there is nothing in its nature to make it move from one point of space to another. Motion therefore, not being contained in atoms themselves must be imposed on them from the outside. Hence matter and motion are two different things and

Thought at first to be absolutely passive and inert in themselves ;

Their motion  
accounted  
for in various  
ways,

must be accounted for separately. But how ? Those who assume atoms to be self-existent, have always assumed the self-existence of motion also. We need not stop with saying that atoms have existed from all eternity ; we may as well add that they have been in motion from all eternity. What are we to say, then, about the direction of their motion ? The first atomists assumed that there is an absolute up and down in nature, and that the natural movement of atoms is downwards (falling motion). But if they fell straight downwards, they would never come together. Their successors therefore assumed that they fell obliquely and thereby came into collision, with the result that many adhered together in smaller and larger clusters and masses ; and some of these masses increased by further collisions, and ultimately became worlds.

Worlds being  
fortuitous  
combination  
of atoms.

Of the many worlds thus formed by fortuitous accumulations of moving atoms, most proved unstable and fell to pieces again—"runing down the illimitable inane." Others have proved more stable, and lasted for many ages. Of this durable kind is the world on which we live. Later atomists seem to differ from the earlier (Greek) ones chiefly in this : they admit that there is no absolute up and down, but assume forces which make atoms move to and away from one another in all possible directions, and call them forces of gravitation and forces of chemical attraction and repulsion. All these views therefore evidently assume the

Attempts to  
overcome  
this duality  
of matter  
and motion ;

*Duality of matter and motion.*—Matter is assumed to be one thing and motion be another ; matter is not derived from motion nor motion from matter ; and yet they have been united, it is assumed, from all eternity. This eternal unity of two absolutely different things is difficult to understand. Hence deistic thinkers have explained it by the agency of God. The true source of all energy and origin is mind. The true self-existent is not matter

nor motion but one mental being of infinite power. This mental power has given existence to atoms and set atoms in motion, and imposed uniform laws, chemical and physical, upon their motions. In other words, divine power made atoms to be purely passive in themselves, but then set them in motion by impulse from without. And the force once imposed upon them is conserved, and keeps them in motion to the end of time without further exercise of divine power. "Who rounded in his palm those spacious orbs," a poet asks, "Who bowled them flaming through the dark profound"? This view of the duality of matter and force seemed to be confirmed by the Newtonian law of motion, and the more modern doctrine of the conservation of force.

That motion is self-existent

That it is created ;

Thus the two fundamental realities of the physical world, *vis.*, matter and energy, seemed to have no essential connection with each other, and to be brought together and 'yoked' together either accidentally (materialism) or artificially (deism). But more recently the study of life and living organisms have made people look for connection everywhere, and unity of power underlying things, making all things co-operate together as correlative factors of one organic whole. This tendency to look for unity of origin and continuous development everywhere has found satisfaction in this, that recent philosophy, supported by physical science, has found it possible to resolve matter into energy, which removes the duality by making matter and motion to be two modes of the same thing. Hence we have to consider

Modern tendency to look for unity of origin everywhere,

And derive matter from energy.

### § 30.

**The modern theory of matter as a form of energy.**—Energy is now conceived as manifesting itself in two ways—as the fixed energy or effort of self-preservation, which is called impenetrability, and the transient energy which

Hence the modern theory of matter,

passes over from one thing into another, and is called force. Hence

As energy of  
resistance  
and self-  
preservation,

*Energy of resistance.*—What is energy? The word 'energy' means literally a *working within* or *from within* a thing, and may therefore be correctly applied to that fundamental attribute of a thing by which the thing asserts and preserves its own existence by resisting and reacting on other things. In short, it is that in a thing which makes it to be a thing—to be a 'real,' and an actual factor in the life of the world. From this it follows that a thing is itself a unit of, or a system of energies; and matter itself is found to be resolvable into energy, *viz.*, energy in the form of *inertia* and *impenetrability*, which may be called fixed or equilibrated energy.

Thus the stone on the hill-top is really an aggregate of energies by which it resists the pressure of other stones, and the disintegrating forces of air, wind, light, heat, rain, frost and snow, and thereby preserves its existence as a stone for ages. The plant is a system of energies which not only preserve its existence by resisting the surrounding elements, but seize upon and assimilate materials from the elements for its own development. Thus material bodies are really system of energies.

Capable of  
changing into  
energy of  
motion,

*Energy of motion.*—Energy of the above kind is literally working from within. But energy takes also another form. The energy of self-preservation which a thing applies from within itself to resist and transform other things, seems to pass out of the thing which originates it; and to pass over into the things which it resists and transforms; and to go on operating in them in separation from its original source; and is thus transferred from one thing to another, and appears never to be lost at all. Thus we must exert our immanent energy to set a

Which can  
be trans-  
ferred from  
one thing to  
another.

wheel revolving ; but the wheel goes on turning for a long time after we have ceased to energize, as if our energy had passed out of ourselves into the wheel. We exert our energy to set a ball rolling along the green, and our energy seems to leave us and enter into the ball ; and not only so but when it strikes another ball, it transfers its motion to that ball and stops short, while the other ball begins to roll ; and from that again the transferred energy passes into another ball, or becomes distributed among many.

This form of energy—this energy which seems to pass out of one thing into another and to be transferred from one to another without end—is that to which we commonly apply the name *force*. The principle of the conservation of force asserts that motion (or tension) is transferred from one thing to another or others, even to the end of time, without any loss of quantity. The principle is evidently only an improvement on Newton's first law of motion, that a body once set in motion (by an external force) will go on moving for ever unless interfered with by a resisting body. The new principle merely supplements the old law by adding that, if the moving body is itself stopped, the motion is not stopped but passes over into the resisting body and from it into others, and continues in some form for ever.

Matter and Force as a form of energy.

We have thus to distinguish between impulse as it exists and takes form within a thing itself, (immanent in the thing) and the same when it passes out of the original source into other things, and is transferred from one to another to the end of time (transient). In the first form it will be *energy* (in the narrower sense). In the latter form we may call it *force*. Energy in the wider sense includes both. This distinction is evidently required by clear thinking, and it corresponds in the main to the common use of the words: we speak of the energy

Different ways of distinguishing force and energy.



of a man in doing work or producing effects, because it proceeds from within the man himself ; but we speak of the force of a cannon ball, because its energy is put into it by some thing else. The words have often been used indiscriminately, but various attempts have been made to distinguish them and give an exact meaning to each. The above distinction corresponds to etymology and common usage, but is not to be taken as absolute ; the two kinds are, no doubt, ultimately identical.

Hence if the theory of atoms is to be retained in any form we must find some way of explaining atoms in terms of energy. This has been done by recent physical science. Hence

### § 31.

**Dynamical theories of atoms**, resolving matter into energy.—

Theory of  
energy ap-  
plied to ex-  
plain atoms.

(1) The difficulty of explaining the origin of motion and the universal connection between matter and motion, led many physicists, including the celebrated Faraday, to reject the traditional view that the ultimate units of matter are bits of inert but unalterable substance ; and to think that, in their ultimate form, the units of matter, whether called atoms or not, are simply *centres of energy*,—centres from which the one universal energy operates, which is the essence of the world,—mathematical points from which energy acts outwardly to repel and draw,—and therefore not unalterable things, like the atoms of Democritus, but elastic and compressible. One advantage claimed for this theory is that the elasticity thus ascribed to atoms give some help towards explaining the known interactions of things.

Atoms as  
centres of  
energy ;

As rings of  
whirling  
ether ;

(2) Another suggestion has been that atoms are vortices or whirlpools in an all but perfect liquid, probably the ether of space. By a perfect liquid is meant one that possesses no inertia, and offers no resistance. Nevertheless a vortex in an

all but perfect liquid might, by rapidity of revolution, be all but impenetrable and indestructible. These vortices are supposed not to be like ordinary eddies in water or air, but to be of the nature of 'vortex rings,' like the rings formed by smoke from a cannon, (or the motion of an India-rubber ring on the handle of an umbrella, when it is rolled up or down). The properties of such vortices were investigated mathematically by Helmholtz, and it was shown that, in an all but perfect liquid, they would possess such self-sufficiency and durability as we must suppose the ultimate units of matter to possess.

Vortex rings.

(3) Later investigations, however, tend to show that the so-called atom must be immensely more complex than was supposed before—more complex than Faraday's centres of force, and than Kelvin's vortex rings—that it is a magazine of forces in moving equilibrium, of unthinkable complexity, capable of being liberated and of passing over into free force of motion again,—each atom being thus a reservoir of available energy, sealed up within the apparently inert substance of the physical world. Hence

As systems of revolving units in moving equilibrium.

*New theory of atoms and of matter.*—According to this view, then, an atom, instead of being the simplest and most inert of all the

Each atom a solar system in miniature

cribed as "a solar system in miniature," but vastly more complex than the solar system of sun, planets and moons which we are acquainted with. It is composed of many units (sometimes called *ions* or *electrons*) revolving about one another and about a common centre with extreme rapidity, and holding one another together in moving equilibrium, rendered stable by the excessive velocity of the revolving units. Yet though comparatively

And a reservoir of equilibrated forces ;

stable, its equilibrium is extremely sensitive, and constantly being modified by external influences, and capable of being partly or wholly disintegrated, —the constituent units being thereby liberated and left to move with inconceivable rapidity through space. These units or *ions* which by their equilibrated revolutions form the atom, are themselves possibly whirlpools of the luminiferous ether—the subtlest known element, believed to be an almost 'perfect' fluid—as Kelvin supposed ; or possibly ultimate centres of energy as Faraday supposed. Hence—

From which it follows that matter is not indestructible ;

*The destructibility of matter.*—From this it follows that matter (atomic substance) is not indestructible—that atoms are not eternal. They have been produced by the integration of finer elements into equilibrated systems, and can be destroyed by disruption of these elements—the breaking loose of their component 'ions' ; and it is probable that both integration and dissolution are constantly going on. By the disruption of the elements of the atom, the energies which were stored up within them (*viz.*, as equilibrated movements of inconceivable velocity) are liberated, and manifest themselves in other forms—*e.g.*, as light, heat, and electric phenomena. Thus there is little doubt that the light emitted spontaneously by radium and various other substances, is due to the instability and consequent disruption of their atoms. And it is now thought probable that the light and heat of the sun is not wholly due, as used to be believed, to the mechanical collision and friction of atoms, but partly at least to disintegration of atoms, and dissipation through space of the elements contained in them.

That atoms can be both formed and disintegrated again.

*Result.*—Hence the energy which makes the

world will manifest itself in the world in two ways.—

(a) As intra-atomic energy : the inconceivably rapid revolutions of 'ions,' by which they hold one another in stable moving equilibrium, thereby constituting the atom. The velocity and equipoise of revolving elements will manifest itself outwardly as the hardness of the atom rendering it all but indestructible by external agencies, though subject, it seems, to decay and dissolution from which (as would appear to be the case if the phenomena of radium are due to the spontaneous disruption of atoms).

Hence intra-atomic energy making matter,

(b) As extra-atomic energy, commonly called force : that energy which presses on things from the outside, and impels atoms and molecules and larger material bodis through space, and is transferred from one to another without (apparently) any loss in quantity.

And extra-atomic, making force

This free and external energy will constitute the *force* with which one material thing *moves through space*, strikes against another, and dislodges it from its position by transferring its own motion to it—force of motion and impact, energy of translation, which produces the mechanical combinations and separations of atoms and movements of masses constituting the outward history of the cosmos.

And there is every reason to believe that these forms of energy can pass the one into the other. We know that the energy liberated from decaying atoms manifests itself as heat, light and electric force, setting atoms in motion from the outside, producing integrations and disintegrations, and motions of masses. And it is probable that, under conditions with which we are not acquainted, new atoms may be formed by integration of disrupted 'ions.'

And the two interchangeable.

But in such matters many still reserve judgment and adhere to

But the idea of atoms may arise as a hypothesis or symbolical conception required by necessities of thought.

Kant's theory of the world.

For it can be shown that the mind must construct such conceptions for itself,

In order to picture to itself the working of nature ;

An *agnostic* view.—There are still among scientific thinkers not a few followers of Hume and Kant who think that the ideas we form of things so far removed from the sphere of sense-experience, cannot possibly correspond literally to objective reality ; but can only be symbolically true. The sphere of our conscious ideas, they think, is separated by an impassable gulf from the sphere of real things. Our experience, indeed, makes us aware of the existence of a material world, but in forming a conception of such a world, we have to translate it in to terms of our own consciousness (feeling) ; and we cannot suppose that feeling has any resemblance of kind to the things and relations of things which occasion it ; *e.g.*, sensation of light, to the moving molecules of brain which directly occasion it, or to the vibrations of ether which agitate the molecules of retina and brain, or to the distant sun which occasions the waves of ether. Does it not follow, then, that our ideas of the *distance* of the sun (and therefore of space), and of the *time* needed for transmission of influence from the sun to us, and the ether itself, and etherial waves which we suppose to carry the influence, must be equally symbolical ?

Thus it is possible that atoms, after all, are merely *symbolical conceptions* to assist the imagination. For latterly, many leaders in physical science have come to regard atoms and matter from a phenomenalist or subjectively idealist standpoint. All that we know directly of the external world is that it is something outside ourselves that imposes *limits* on our own activity. These limitations, we, by our mental reaction, transform into elements of consciousness and feel as sensations (without being clearly conscious of such reactions, because clear consciousness begins with sensation). We are thereby constrained to use sensations as means and materials from which to construct for ourselves a conception of the world of objective reality beyond our sensations. In doing so, we conceive our sensations as representing substantial things existing independently of ourselves and of one another in space, and interacting with one another in space and time. But we cannot conceive substance as extended in space with-

out subdividing it in our own imagination, and picturing it to ourselves as formed by the addition of many extended parts; and these again as aggregates of smaller parts; and so on, until our imagination finds rest for itself at last in the idea of ultimate units, which cannot be divided any further. In this way we come to conceive the external world as an aggregate of atoms acting and reacting on one another mechanically, after the analogy of machinery of our own construction, and in conformity with the mathematical principles of mechanics expounded by Descartes and Newton. It is impossible however, many think, that this world of streaming, whirling and dancing atoms, which mechanical science helps us to construct in our minds, represents adequately the world of reality as it exists independently of our minds. Indeed criticism of knowledge proves the mechanical view to be only 'a figurate conception'—a system of symbols and 'working hypotheses'—under which we interpret reality in conformity with the conditions imposed on us by our own powers of sensation and representation. This is the agnostic theory of Kant—that our own mental power, constrained by an unknown influence, constructs the world out of ideas of its own making and according to laws of its own. Hence the world of our thought will correspond in some way to, but will not resemble in kind, the real world outside of our thought.

Whether such things really exist objectively or not.

Many scientific constructions may be merely symbolical.

The theory of atoms, therefore, may be accepted as a convenient and useful artifice for picturing to ourselves the working of outward nature, but cannot be accepted as representing nature as it really is.

### § 32:

**The power which regulates the motions of atoms** and makes them co-operate in the production of results.—Our conclusion as to the power which controls and regulates and gives direction, degree and co-ordination to the motions of atoms, and adapts them to the production of results, will depend on which of

What power is it that co-ordinates the moving forces and makes them produce definite results?

the above theories we adopt regarding the origin of atoms and force—

According to the naturalistic theory nothing is needed but motion and fortuitous combinations.

(1) If we assume the materialistic doctrine of *self-existent matter and force*, then we shall have to assume that the transformations of matter and motion going on in the world, go on by necessity of their own self-existent relations, and of the self-existent degrees and directions of the forces working in them, according to self-existent laws of mechanics. But as such eternal necessity is not subject to any reason or purpose, it is really the same thing as chance. Hence we may say that according to this hypothesis the movements of bodies and the combinations and disintegrations going on in the world, are due to chance.

The world thus produced is spoken of as a product of evolution. But it is a kind of evolution which is produced by the shock and coherence of atoms and bodies moving about in space, according to self-existing laws of mechanics, without any guiding intention or purpose; whereas 'evolution' really implies something to be evolved, *i.e.* some purpose or end immanent in the evolving power, and becoming gradually 'evolved' or unfolded. Therefore the above purely mechanical theory of the world is not 'evolution' in the proper sense of the word.

Some may say that God has so co-ordinated them from the beginning as to make them work out the results which He desired.

(2) If we assume the doctrine of *instantaneous creation* of matter and forces—that the world with all its contents—atoms with their motions, and the combinations of atoms constituting nebulae, suns, planets and living organisms—were brought into existence in a moment by a fiat of creative will, then we shall have to assume that the same divine power which gave existence and motion to atoms, also imposed on them the uniform laws according to which their motions are regulated and co-ordinated, and made them to co-operate in working

out the divine purpose; and that these forces, when once created and co-ordinated, go on working out the intended results by pre-established harmony.

And we may here distinguish (1) the *deistic* form of theism which supposes that God, having created the world of atoms and invested them with motion and laws of motion, then left the world of moving atoms to themselves, and that they have continued to go on by themselves without further interference, through the excellence of their own intrinsic mechanism,—thus making the world to be a divinely constructed machine, and God to be its divine ‘artificer’; and (2) the doctrine of *divine providence*, which supposes that the same power which gave existence and co-ordination to the world of atoms is still operating on the world from the outside, and regulating and re-adjusting the movements of atoms from time to time to make them produce desired results. This latter form of theism, therefore, makes God to be not only the ‘artificer’ of the world, but also its ruler and providence.

Though there are different ways of conceiving God's action on the world.

(3) But physical and biological investigation of the past history of the earth and its organic inhabitants, makes it more probable that the earth has come to be what it is by a long process of differentiations and integrations, in the course of which the primitive substance has differentiated itself into atoms; and atoms, by movements of infinite complexity, have integrated themselves into that moving equilibrium of elements, planets, and living organisms which constitutes our world. When this fact of evolution is granted, the question comes to be: what power has produced the atoms, and controlled and co-ordinated the movements of atoms, and made them co-operate in such a way as to produce the cosmos as it now is? We may answer, as before, that there would be no change at all in the world if there were not some *good* to

But there is reason to believe that the history of the world has been a process of evolution.

And that its evolution is guided by immanent idea and purpose.



be attained by it, and that all change and all regulation of changes must be brought about by a good operating as *idea*, and working out its own realisation. This will be evolution by immanent *final cause teleology*—by the idea of an end (*finis, telos*) and good to be attained—which is evolution in the proper sense of the word. (See note at end).

This will mean that the world of finite things, has been evolved by the self-realising power of an idea, resolving itself into all the forms of energy which manifest themselves in matter, life and finite minds, and raising itself into consciousness of itself as the pervading spirit of the whole.

Though some continue to think that it is produced by chance combinations without intention.

But some may adhere to the first of the above views that the world has been produced by the fortuitous combinations of atoms striking against one another from the outside, and that the mechanical collisions of atoms have produced the world. This view, if it can be called evolution, will be the *mechanical theory* of evolution. We shall have therefore to consider the *mechanical* and *teleological* theories separately. But before proceeding to them, we have to consider some collateral questions which have played an important part in modern nature-philosophy.

### § 33.

#### *Transformation, Conservation, Correlation of Forces.*

But all physical theories assume the conservation and constancy of the forces working in the world,

#### **Possible meanings of conservation.—**

The *reality* or *substantiality* of a (finite) thing consists in its power of maintaining and realising fully its own existence in interaction with other things. This power of self-preservation is equivalent to power of resisting and imposing changes on other things; and this, again, is equivalent to putting forth energy. It follows, therefore, that the essence

of things is energy. Now if we speak of conservation of energy in this wide sense of the word, it will mean merely that the amount of energy contained in the absolute reality and available for concentration into atoms so as to constitute the substance of a material world, and for interaction between atoms so as to constitute the development and history of the world, undergoes no diminution nor increase. And this would be equivalent to saying that the productive and preservative activity of the absolute or of God (activity employed in the production and preservation of finite things) remains always the same.

What then is meant by conservation?

Taken in this wide sense, however, the principle is without meaning. We must consider, therefore, in what other senses it can be understood, and we shall find that it may be held (a) in the sense of conservation of *matter*, and (b) in the sense of conservation of *motion* or *force*. For we have found that energy manifests itself in the physical world in two ways—

It is used to include conservation of matter, and conservation of force.

(a) It manifests itself as the *intra-atomic, fixed* or *stored* energy—the forces in equipose—which constitute atoms, the elements of matter. Hence, to ask whether energy in this sense is permanent, is to ask whether the amount of matter in the world is constant—which is equivalent to asking whether the number of atoms is constant—or whether the principle of conservation holds true of material substance. It has generally been assumed that atoms are self-existent and indestructible or at least approximately so, and have remained the same since the beginning of the world. To hold this, then, is to hold the conservation of energy in the form of material substance. But, as shown above, this view of the

What is meant by conservation of matter?

indestructibility of atoms and conservation of matter can no longer be maintained.

Can such conservation be maintained?

This is rendered doubtful by the dynamical theories of atoms.

It appears rather that the energy stored up in the atoms is capable of being liberated, and of passing over into other forms. If this is so, it follows both (1) that new atoms may be constituted by further concentration of energy into the fixed forms; and (2) that atoms already existent may be disintegrated and dissipated into other forms of energy. In other words, it follows from the nature of atoms as equilibrated energies, that the number of atoms in the world, and therefore the quantity of energy embodied in the form of material substance, is capable of being diminished and increased; and that the conservation of energy in the form of *matter* can no longer be maintained as an absolute fact.

What is meant by conservation of force?

(b) Energy manifests itself also in the form of *motion* and *tendency* to motion—as force, impetus, tension, strain. To say that energy in this sense is conserved, will be equivalent to saying that the quantity of motion and tendency to motion in the world remains the same under all changes of form. But when the principle is expressed in this way, we have in our minds the common conception of force as something that can be transferred from one atom or material body to another. We are thinking of one thing making another thing move by transferring its motion or impetus to the other thing. And we are thinking of molar or mass force as passing over from one thing, and becoming molecular force in another thing, as the shock of two solid bodies produces heat; and of molecular motion becoming molar, as the heat of the furnace passes over into movement of the engine. And the principle means that in passing from one thing to another, and from one form to another, the quantity of energy in the form of motion or tension is neither diminished nor increased.

In what sense and to what extent has it been demonstrated?

Only so far as concerns the transformation-

Now it has been demonstrated experimentally (with approximate accuracy) that such conservation

*does* occur in ordinary cases of transformation—at least in the passage of energy from the form of molar motion to the form of heat, and *vice versa*. “Motion, heat, light, magnetism, electricity, chemical affinity pass over one into the other ; they are only different modes of one original energy force and one can be converted back into the old form out of which it has been evoked.” But it remains possible, nevertheless, that the absolute amount of motor force in the world may be increased by a change of energy from the fixed atomic form to the motor form, or diminished by a change in the opposite direction. And there are some reasons for believing that such transformations are actually going on.

tion of molar  
force into  
heat and of  
heat back  
into molar  
force.

What is really proved, therefore, with regard to conservation, is that motor force *may* disappear from one thing, and re-appear in a different form in another thing, without any loss of quantity. But it is not certain that the amount of energy stored up in the form of atoms—the quantity of matter in the world as a whole—remains unchanged ; nor, therefore, that the amount of energy in the form of motion of atoms in the world as a whole, remains unchanged.—If the number of atoms be increased or diminished it follows that the amount of atomic motion in the world will be diminished or increased. It is now evident, therefore, that this, famous principle amounts to nothing more than this that the quantity of reality in the universe remains always the same—that what reality disappears in one form, reappears in another. But this is only a truism.

Is universal  
conservation  
then really  
proved in any  
sense ?

The principle of conservation of motor force (even in the above restricted sense) might appear to be contradicted by two other principles, but the contradiction here is only apparent. These are—

Dissipation  
of force and  
its possible  
consequence.

(i) The *dissipation* of force. In practically all applications of molar force—in every case of one body striking, pressing, pushing or rubbing against another—some part of the mass motion is transformed into molecular motion, especially heat. Now wherever heat is produced, part of it, perhaps the greater part of it, instead of being changed back into mass-force again, is radiated off into the surrounding atmosphere and ether; and finally, like the heat of the sun, into the ether of infinite space. It thus appears to be lost altogether, at least so far as our own world is concerned, *i.e.*, lost as atomic and molar motion. We may infer, however, that it is not lost absolutely; and some have suggested that it may go to the formation of new atoms in space, which may ultimately concentrate into new worlds.

Equilibration  
of forces and  
its possible  
consequence.

(ii) The cessation of movement by the *equilibration* of moving bodies.—We see that moving objects, coming together, tend to check one another's movements, and hold one another in fixed equilibrium, in which all movement is suspended—as in the stretched bow, and repressed spring. Thus the earth itself may have been formed by the coming together of atoms, stopping one another's motions, and remaining in stable equilibrium (except in so far as pressure of atoms produces heat, and heat radiates off into space).

They point to  
the possible  
death of the

But this de-  
pends on the  
ultimate  
nature of  
atoms.

Hence Spencer has thought that the general tendency of the world is towards equilibration, and that ultimately the whole world must become an inert mass, like a burnt-out cinder, or a clock run down—all its matter having gravitated together into one solid body suspended at one point of space, and all its motion having been dissipated into the rest of space. This could be the case, however, only if the atoms of which the world is composed were eternal and unalterable. If every atom is itself a reservoir of energy, capable of becoming disintegrated and operating in other ways, then the ultimate equilibration of atoms and death of the world does not necessarily follow.

Correlation  
expresses  
what is  
meant better.

**Correlation.**—The ordinary statement of conservation takes for granted the correctness of the common way of conceiving force, *viz.*, as some

thing that passes from one thing into another thing without loss of quantity. This view of force involves the metaphysical difficulty of transference; and some prefer that the principle should be stated in such a way as to be independent of it. It is enough to say that all the things in the world are so correlated and co-ordinated as factors of one system, that, wherever there is a diminution of activity in one thing, there is a corresponding increase in another; and to say that there is a uniform ratio between the decrease in the one and the increase in the other or others, as the sinking of one scale is proportionate to the rising of the other. This does not imply that any thing passes from the one thing into the other. Thus it may be that all the activity in the world is manifestation of one absolute power, evolving, and working through the whole; and that every change in any one thing is a re-adjustment of the whole according to one pervading plan. From this it would follow that there is some truth in the doctrine of occasional cause—that all changes are produced by one universal power, and that a change in one thing does not really produce a change in another, but is only the *occasion* on which the one universal power produces it. Therefore the term correlation will express all that is really known about the subject, more accurately than conservation.

The doctrine of conservation has been pointed to by some as confirming the mechanical theory of the world. The transformations of force and the consequent transformations of matter, are equally eternal. Nothing originates and nothing perishes; and nature moves in a self-sustaining circle, in which causes pass over into effects, and effects become causes of other effects, without beginning and without end. "Everywhere there is transformation, but annihilation nowhere."

than conservation,

Because the world may be a living organism in which every part is regulated by the whole.

Does conservation prove the mechanical theory of the world?

XI.  
THE WORLD OF LIVING BEINGS.

§ 34.

*Mechanism, Organization and Life.*

What is  
meant by  
mechanism ?

**Mechanism.**—When we speak of mechanism and machinery, we are thinking of things as composed of atoms and aggregates of atoms, moving through space and striking against one another with different degrees of impetus ; and of motion and tendency to motion (*i.e.* force) as something which may pass from one moving body into another and set it moving. Mechanism, therefore, consists in transference of motion from one body to another by external shot and impact ; and one rolling ball communicates its movement to another by striking against it.

Examples of  
mechanism.

Thus, in the case of a mill turned by water, the falling water communicates its impetus to the blades of the water-wheel. These by their leverage-power carry round with them the nave and shaft, to which they are attached. The shaft communicates its motion of revolution to the internal wheels, and these finally to the mill-stone. The mill-stone is thus made to revolve by the force communicated to it from the falling water, not directly but through a number of intermediate wheels and axles ; and the friction of the revolving stone crushes the grain, *i. e.* changes the relative positions in space of its granules and molecules.

Mechanism  
illustrated  
from the  
working of  
machinery.

Thus, a mechanical process begins with an application of motor force from the outside ; its intermediate stages consists in the transmission of movement from one part to another part ; and its

final result is to produce change of position of the whole or part of some other thing in space. The motion transferred may continue through the whole process to be molar, as in the water-mill ; or may begin as molar and pass over into being molecular, as when the turning of a handle produces an electric current ; or may change from molecular to molar again, as the heat of the engine's furnace passes into movement of the wheels.

And a machine, or mechanical system, will be a combination of material parts, so adapted and collocated that motion put into one of them from the outside, is transmitted and distributed through all the rest ; and the parts, by inhibiting and balancing one another's movements, produce a joint result which consist in setting something else in motion and thereby producing change of position in space.

Definition of  
a machine.

Thus, the motion which the hand communicates to the watch-key is transmitted through all the wheels, and the wheels are so adapted in size, shape, and position that, by their inertia, they inhibit and regulate each other's movements ; and the joint result is the one uniform movement of the hands upon the dial-plate, which measures time.

Thus the characteristics of a mechanical system are (1) that its motion is derived from motor force applied to it from the *outside* ; and that its parts are so adapted to one another in shape, size and position, that they transmit the motion from one to another by external impact ; and yet, by their interaction, produce one joint result. And (2) it follows from this that a mechanical system is not a real but only an *artificial* whole—it has in it no central power of self-construction, self evolution, self-preservation or self-reproduction—it is made, it does not grow. Its parts are brought together and held together, not by a

Characteris-  
tics of mecha-  
nism ana-  
lysed.

Forces enter-  
ing from the  
outside,



Parts external to one another,

And put together by force or forces other than their own.

How mechanical combinations may have been produced.

By constructive power working from the outside,

By external energy and design as in human workmanship, which when applied to the world is the doctrine of creation, or—

power of self-evolution working from within any one of them or in the whole, but by many different forces coming in from the outside, and passing out of one part into another ; a mechanism has no internal unifying and self-regulating power. Hence (3) the parts of a machine are all *external* to one another, and have nothing in common beyond their being material, and capable of receiving and transmitting motion. But in order to do this, they must have certain definite positions in relation to one another, in order to communicate their motions ; and must be of certain definite shapes and sizes, in order to balance one another's movements by inertia and interaction. In other words, they must have determinate *collocations* and *adaptations*.

**Origin of mechanism.**—The question then presents itself : How do systems of mechanism originate ? How can this *collocation* and *adaptation* of originally unconnected materials and parts be brought about ? It may be—

(1) By *constructive* power working from the outside. In all the real mechanisms that we are acquainted with, the materials have been selected and the parts designed, adapted, and put together by a power altogether foreign to themselves ; and as a system of means for the realisation of an end or purpose which is altogether foreign to the materials and parts themselves, and to which they yield only a forced subservience. Such mechanisms, therefore, are products of designing power working on them from outside, as in the case of a watch, a steam engine, a ship, and all the works of human and animal art. This, then, is construction according to *design*, involving *external* teleology. May not the cosmos as a whole have been constructed

in this way by God Almighty? This is the deistic theory of the world conceiving the world after analogy of a machine, and God after that of an artificer. Or—

(2) By *fortuitous* self-arrangement of atoms, according to the laws inherent in the physical forces of nature, which is the naturalistic theory. For, it may be asked, do not the materials and forces of nature *adapt themselves* to one another from mechanical necessity without any intention or purpose? Thus, for example, the water which falls as rain seeks hollow ground, and scoops out earth and rock until it has formed a channel for itself in which to flow. Here the materials and forces—water, earth, rock, and gravitative impetus—come together by necessity and adapt themselves to one another without external design. And it is in this way that the surface of the earth has been scooped and moulded into forms suitable for the support of living creatures—by the *self-adaptation* of materials and forces already *collocated* in nature itself. The same may be said of the solar system as a whole; it is possible that a nebula of moving molecules or meteor-stones would, by their own motions and interactions, concentrate into a moving equilibrium of bodies, such as our solar system.

By fortuitous combinations of parts, and survival of the fittest without design, which is

The mechanical theory of the world, or

Thus naturalistic thinkers believe that, given matter and motion, all the adaptations and collocations of nature—even living organisms—will yet be found to explain themselves as the necessary result of mechanical interactions, without any guiding and unifying idea. This, then, may be called, the *materialistic* and *mechanical* theory of the world.

(3) By *immanent idea, purpose, reason*.—But we may think that the opposite forces of attraction and repulsion, working at random, could not have produced a co-ordinated and self-adjusting system such

By immanent idea or reason realising itself from within—

Making God  
to be im-  
manent in the  
world, and

as our world is ; they could tend to nothing but a mechanical equilibrium in which all motion would be lost. The existence of such a world implies a unifying and organizing power underlying all the finite forms of energy. And an evolving and unifying power means power having a purpose and end inherent in its nature, as the *reason* or immanent *motive* which makes it to be productive energy, and to evolve a world (for, as there was nothing outside of itself to make it do so, its motive must have been, not a mechanical shock from the outside, but a *reason*, *i. e.* an end, immanent in itself). Such a power, therefore, would operate as a universal life-power. And this leads to the conclusion that mechanism is not ultimate, but instrumental to a power behind or rather within the mechanism, which evolves the system of mechanically related parts, and works in and through them, and in so doing makes them subservient to a common purpose. This, then, is the doctrine of *immanent* teleology which conceives the world after the analogy of an organism, and God after that of the life and reason immanent in the organism. It supposes that the world is evolved by self-realising idea from within as the organism is evolved by its immanent life. It therefore makes the world to be an *organism*, and its history to be an evolution in the true sense of the word (*i. e.* an 'unfolding' of something contained in its primitive substance, as the flower is contained in the bud). Thus we are led to consider the nature of—

Making the  
world to be  
an organism.

### § 35.

What is  
meant by  
organization  
as compared  
with  
mechanism ?

**Organization**—We see that the parts constituting a machine are brought together, adapted, and made to work together, not by anything inherent in any of themselves, but by forces acting

on them from the outside. It is not a real self-sustaining unity, but a constructed one—a “manufactured article.” An organism on the contrary, is not *made* but *grows*—not put together by forces acting from the outside, but evolved by a single power working from within—a self-evolving, self-sustaining unity. In other words, it implies a power assimilating materials from the outside, differentiating them into parts adapted to different functions, and making all its parts, with their functions, to co-operate as factors of a higher unity, and to serve as means for the realisation of a common result.

Contrast between organism and mechanism.

Thus the central organizing power lays hold of the surrounding atoms of matter, selects those which it needs, draws them to itself, and projects them first into the form of a ‘cell’—the unit or monad, so far as known, of organic life—a globule of albuminous substance surrounded by a membrane, and containing a *nucleus*, as the centre, apparently, from which it co-ordinates its energies. Working from this centre, it draws, selects and assimilates more and more materials from outside; and differentiates its primordial nucleus and cell into two, four, eight, sixteen, and finally into thousands and millions of cells; and in so doing, modifies and integrates them into different organs, adapted to the different functions needed for preserving and perfecting its system against the forces of external nature, and for making these forces subservient to its own preservation and higher development. And this co-ordination of all the parts and processes to this common result is such as can be explained only by supposing that the result has been present and operative in some way from the beginning, and has been realising itself in all the processes of growth. This is equivalent

A machine is made—an organism grows.

Hence the nature of growth requires to be explained and illustrated,

In life the result has something to do with its own production.

to saying that it has been present as the energy of 'immanent idea.' For we must regard past, present and future as all co-ordinated in the absolute ; and 'idea' therefore, as the future operative in the present.

Indeed organic growth can be shown to be the self-realisation, or self-development of an idea or purpose present in it from the beginning,

And evolving and co-ordinating all the parts from within.

And this evolving and co-ordinating force of idea is life.

Thus in plants, it differentiates the cells into air-vessels and sap-vessels, wood-fibre, and tissues of bark, leaf and flower ; and in animals, it differentiates them into epiderm, muscle, bone, blood-vessels, visceral organs, nerves and brain. And yet, while working in the plurality of parts, the evolving force retains its unity as a whole, and makes the parts co-operate all together as organs of one organism—giving to each a special function of its own, and making all their functions contribute to the working out of a common end *viz.*, the life and health of the whole. We come, then to this result : that which gives unity and continuity to the activities of the organizing power, is *end* or *purpose*, present in it from the beginning as tendency, and having some analogy to 'idea' which prompts and guides the activities of self-conscious beings. For 'idea' is really the power of the future working in the present—a good to be realised, an end present from the beginning and working out its own realisation.

Thus, the plan or 'idea' contained in the evolving force from the beginning, manifests itself as the energy of Life—the unifying and controlling power of the whole over the parts—differentiating and co-ordinating the parts and making them co-operate together for its own more perfect realisation. The parts derive their form and function from the whole ; and the whole makes itself to be what it is by evolving and sustaining the parts as its organs. In other words, the evolving power reacts from the whole upon the parts making them subservient to its own plan or 'idea'; and thus raises itself into

being the 'life' of the organism, and afterwards to being mind and 'will'. Hence—

§ 36.

**Life.**—Thus, the self-realising energy of purpose or 'idea,' which evolves the organism from within, making all its parts work together for the good of the whole, and from the whole reacts upon, and controls the parts, differentiating and co-ordinating them as its organs—is what we understand by the *life* of the organism.

Hence the nature of life—

Therefore the life is both the *beginning* and the *resultant* or product of the organism. It is its beginning, because it is the power which evolves it from the primordial cell onwards. It is its resultant, because the organism is the system of means by which it completes and perfects itself, and makes itself to be concrete life. Hence 'life' or 'soul' was called by Aristotle the 'entelechy' of the body—the end which the organism has within itself—the idea or plan which draws out and guides the organizing energy towards its own realisation.

A power which evolves the organism in order to perfect itself,

And this control of whole over parts, of purpose over means, in which life seems to consist, manifests itself especially in—

And does so by exercising the following functions especially—

(1) The power which the organism has of exposing its own molecules to oxidation for the production of heat and energy;

(2) The power of applying part of the energy thus acquired to change its own form and position in such a way as to resist external forces, and adapt itself better to outward circumstances, and thereby preserve itself;

Concentrating energy by oxidation of materials,

(3) The power of applying part of its energy to seizing and drawing into itself materials from the outside, assimilating them to its own substance

Using its energy to increase, differentiate and

co-ordinate  
its materials,  
for a common  
end, and

(digestion), thereby making up for what has been already oxidized, and increasing its own bulk, and making possible the subdivision and multiplication of cells and functions in which growth consists ;

(4) The power of modifying its cells and integrating them into different organs, adapted to the different functions of circulation, respiration, digestion, co-ordination, etc., and co-ordinating the work of these organs so as to make them co-operate for the good of the whole system.

Prolonging  
its own exis-  
tence by  
generation  
of new indi-  
viduals.

(5) The power (when its growth and self-differentiation can go no further) of giving off cells in the form of buds or germs, which grow into new organisms, thereby preserving its species for unknown ages.

These powers of life have to be accounted for in any explanation that is given of life. The great question is, whether these vital powers can be accounted for by self-adjusting mechanism alone, *i.e.*, by forces coming together accidentally from the outside, without any differentiating and organizing working from within ; or imply the working of a power different in kind from attractions and repulsions of cells. Hence

How then did  
life obtain a  
beginning on  
earth ?

**Origin and nature of Life.**—This being the relation of mechanism and organization, the next great question of biology comes to be : What is life and how did life originate on earth ? Various theories have been held. Thus we find—

View that  
life originates  
out of lifeless  
matter.

1. The view already referred to, that life consists of and contains within it nothing more than *mechanical processes of inanimate matter*, and therefore rise out of the lifeless, differing from the lifeless only in complexity of motions. Thus, a purely *materialistic* view of nature will require us to think of organism as containing nothing essentially different from

the mechanical interaction of moving atoms ; and to explain life and growth without supposing any unifying and co-ordinating power of idea or purpose. We must suppose that atoms, moving towards or away from one another— attracting or repelling one another—by the forces attached to them from the beginning, strike against one another, and adhere together in clusters, and by their fortuitous motions arrange themselves at last into the nucleated protoplasmic cell with which life begins ; that the fortuitous movements of atoms within the cell draw into it more atoms from the outside, and at last split it up into two cells, and these ultimately into many thousands ; that the interactions of the different cells make them differentiate themselves into tissues and organs having different functions ; and that the motions of the atoms and interactions of the organs spontaneously adjust themselves in such a way as to co-operate with one another in one moving and self-sustaining equilibrium, which constitutes the organism as a whole. We shall have to believe, therefore, that life is nothing other than this mechanical resultant of the interactions of the molecules constituting the body. And we shall have to explain not only the life of the individual but the reproduction of other individuals in the same way.

In other words, we shall have to suppose that after innumerable fortuitous combinations, molecules of C, H, O, N, adjusted themselves at last into a kind of self-sustaining moving equilibrium, which not only maintains its own constructive and conservative force during the life of the individual organism, but keeps it up through many generations of individuals (as a whirlpool in the river passes

As a product of the interactions and combinations of physical forces,

A self-adjusting equilibrium of the forces of the body, having the power of maintaining itself for a time,

And of transferring itself from one



organism to  
another by  
reproduction.

Hence the  
materialistic  
conception of  
life.

A fortuitous  
result pro-  
duced with-  
out any  
purpose.

Hence the  
doctrine of  
abiogenesis ;  
or origin of  
life from the  
lifeless.

from place to place and maintains itself for some-  
time, before it loses its stability and disappears).  
For when the system of equilibrated atoms which  
forms one organism, has completed itself, it  
provides for future systems like itself, by giving off  
clusters of atoms of a special kind, *viz.*, germ-cells,  
which ultimately grow and differentiate into new  
organisms in the same way, perpetuating the  
original equilibrium. In short, we shall have to  
suppose that the building up and reproduction of  
organisms includes nothing more than this mechan-  
ical self-equilibration of forces ; and that the life  
of the organism is nothing more than the *resultant*  
*force* produced by the co-operation of all the forces  
working within the organism.

And all these co-ordinations must be supposed  
to result from the fortuitous motions and interac-  
tions of the atoms, without any *purpose* or *end* to  
be attained. No atom knows what another atom  
is doing ; and there is no unifying power of end,  
good or idea, to prompt and co-ordinate their  
movements towards a desirable result—life being  
merely the mechanical resultant in which the  
random movements of all the atoms and clusters  
of atoms meet and coalesce,—after reinforcing and  
strengthening or equilibrating one another. Hence  
the doctrine of—

*Spontaneous generation.*—If we think to under-  
stand life in this way, as the moving equi-  
librium of colliding atoms, we shall have to explain  
the *origin* of living organisms by some doctrine of  
*abiogenesis*, or 'spontaneous generation'—that living  
creatures originate from what is lifeless—*i.e.*, from  
inanimate matter—by the working of the forces  
molar, chemical and electrical, attached to atoms.  
There will be nothing in the living organism that

cannot be produced by the movements and tendencies to movement, the attractions and repulsions, and consequent integrations and disintegrations, of atoms. These, working fortuitously through infinite time, must be supposed to have produced at last (among infinite other combinations) globules of protoplasm—C, H, O, N—capable of keeping up among themselves the coordinated movements called life, and of multiplying themselves by sub-dividing themselves into other globules, and of differentiating themselves into different species of living beings. Indeed, it was generally believed that we can still see the process of spontaneous generation going on everywhere round about us. Floating in the air, and swarming in the soil and water, there are myriads of elementary organisms, both vegetable and animal (bacteria and infusoria). Wherever a particle of decaying animal or vegetable substance, abounding in the elements, C, H, O, N, is exposed to the atmosphere, such organisms appear in millions in the course of a few hours, darting and vibrating with extreme activity. How do they originate so suddenly? It can not be in any other way, it was thought, than by chemical interaction of molecules, stimulated by additional force from the light and heat of the sun.

Original  
plausibility  
of this  
doctrine,

Owing to the  
ubiquity of  
life in nature,

At one time  
thought to  
be demon-  
strated.

Abiogenesis, therefore, was held to be one of the commonest and most obvious facts of nature. The improvement of the microscope in the middle part of the last century, by fully revealing this world of bacterial life, seemed to supply overwhelming evidence of spontaneous generation, and therefore of the mechanical theory of life.

2. *Biogenesis*, the view that all life is derived from *antecedent life*—Further improvement of the microscope, however, and greater skill in

View that all  
life origi-  
nates out of  
previous life,

Biogenesis,  
or life from  
life.

How abio-  
genesis is re-  
futed experi-  
mentally.

But whence  
was the first  
life derived?

We may sup-  
pose that  
living species  
were  
created just  
as they are,

the use of it, soon refuted the theory that the bacteria of soil and water originate spontaneously. When any liquid containing an infusion of decaying organic matter is boiled so as to destroy all previous bacterial life, and hermetically sealed up so as to exclude the air and the dried germ-cells which float in it everywhere,—then no new life appears, however long it may be kept. Such experiments prove beyond doubt that the living organisms which appear so rapidly in putrescent substances, are all derived by the self-division and self-multiplication of other living cells from the atmosphere. Thus, at last, the principle was fully established that *omne vivum ex ovo est*—every living cell is derived from another living cell, and there is no mechanical abiogenesis. This, then, is the theory of *biogenesis*, that living creatures can be derived only from antecedent life. But this leads to the question,

**Whence then did the first life come?—**

If we hold the doctrine of biogenesis that all life is derived from antecedent life, we have to form some hypothesis as to the antecedent life from which all life on earth is derived, and the manner in which it has been derived. Thus—

1. We may suppose that the different forms of life—the different species of living creatures—were brought into existence all at once just as they now are, and that no process of development from lower to higher has been required. For we may suppose that all life was originally in God Almighty, and that God in the beginning *created* the first representatives of all the different species of plants and animals just as they now exist, and gave them their life, instincts and powers; and that they have transmitted them to their off-

spring by heredity without any essential change. This is the doctrine of *special creation*.

2. Or we may adopt a theory of *evolution*, and suppose that life first appeared on earth in a very low and primitive form, and that the higher forms have originated by a process of development from lower to higher. Thus—

Or we may suppose that they have been produced through a process of evolution—either

(1) We may combine the above theory of creation with that of evolution, and suppose that what God first created was not any mature species such as now exists, but only a certain number of germ-cells of the most elementary forms—the minutest globules of nucleated protoplasm—and that He “breathed the breath of life” into these primordial cells, and that these, by their interaction with their environment and constant struggle to adapt themselves to their changing circumstances, themselves (with survival of the best adapted) have become differentiated in the course of ages, without further creative interference, into the innumerable species of creatures which now inhabit the earth—the view suggested at first by Darwin. In other words, the ‘vital force,’ breathed into the primitive cells at their creation, was itself sufficient to differentiate and develop them, in the course of ages, into all the different species of plants and animals, without further interference by the creator.

That the most elementary germs were created, but the higher kinds have been developed ;

(2) Or we may adopt the idealistic view stated above, that life is idea realising itself—that mechanism is nowhere: the ultimate truth of nature—that it is merely instrumental to a higher differentiating and co-ordinating power, which, in the last analysis, is found to be the energy of self-realising good—of purpose, or idea of the future working in the present. From this point of view, the life-power which evolves plant and animal,

Or that development has been working from the beginning,

viz., as the self-realisation of immanent end ;

will be a concentration, or finite reproduction of the universal life which evolves the world, and is working perpetually in all its parts. It will be present everywhere as 'power,' and wherever it has evolved the antecedent conditions and circumstance favourable to organic life, it seizes there upon its prepared materials, C, H, O, N, and builds them up into individual plants and animals, and continues the life of the species from generation to generation. Thus the evolving power will be immanent in the things evolved.

God being regarded as immanent in the world, and evolving it from within, instead of creating it from the outside.

Organisms, therefore, will not be fortuitous products of atoms colliding with one another from the outside, but factors of one all-embracing purpose working within. Each will have its function as an essential factor of the system. Each will be called forth by a *need* or *want*, and be, therefore, the realisation of an idea. Nothing will be left to chance ; what appears to us as *natural* selection, will at the same time be *rational* selection. The 'fittest' will indeed survive ; but it will be fittest, not by random concurrence of circumstances, but by purpose, end, idea, shaping and adapting things from the beginning. "Whatever is, will be rational." The life of the world will be the immanent thought and will of God. This objective idealism was first suggested by Plato, and was worked out more elaborately by Aristotle, making the development of the world to be the self-realisation of a future good or end working in the present, and therefore as idea.

Difficulties.

The difficulty in the way of this idealistic view is that there are so many things in the world which it is difficult to explain as parts of a rational plan, and as means designed for the working out of end. Hence the arguments of pessimism and material-

ism, that the world is a product not of reason but of blind chance.

But we see from the above that the question of life involves that of the species of living creatures ; and that the question of the origin of life leads on to that of the origin of the species of living creatures ; and the origin of species has been one of the most engrossing questions of modern biological science. Hence

### § 37.

#### *Species of Living Creatures.*

Life does not manifest itself in isolated individuals merely, all of different kinds, as if at random, but in *species* of living creatures. An organic *species* or kind is an indefinite number of living creatures having their essential points of structure, and therefore their modes of life, in common ; and capable of interbreeding with one another, and therefore such as might be descended from a common ancestor, *e.g., rose, palm, dog, horse, elephant*. Life manifests itself in a different way in each of these species, or natural kinds ; but in essentially the same way in all the individuals of the same species, as if they were all leaves of one tree, partakers of one common life.

Hence, even so far back as the days of Plato, the question was raised : why do individual plants and animals appear not at random, but in species or kinds, of which all the individuals are essentially similar in structure and life ? and why does the same *specific form* live through many generations of perishable individuals ? And the same question has continued to be asked down to the present day. Two principal hypotheses as to the nature and origin of species have to be distinguished.—

Life manifests itself not in individuals merely, but in species.

Hence the question of the nature and origin of species has become a prominent one in biological science.

Two theories—

That species  
are immu-  
table,

Because  
every species  
has a reason  
for its  
existence,

And its  
reason for  
existence  
must be  
eternal.

1. **That species are eternal.**—The conclusion at which Plato arrived was that every species must have a permanent *essence*, or *reason* for its existence. For an essence, when analysed to the utmost, will be found to mean a *reason* inherent in the ultimate nature of things. Every species fulfils some purpose, and this purpose or use is the reason for its existence. A use or purpose is a good to be attained. A reason therefore means a *good* not yet realised. A good not realised means a *need, want, imperfection*, existing in things and a striving to overcome the want. A good striving to realise itself is *idea* (an idea in our mind is an incipient impulse to do or attain the something of which it is the idea). Therefore every species has for its essence an *idea* of good relating itself. It is this realising energy of idea, then, that evolves and sustains the species. But the idea neither realises itself fully, nor exhausts itself, in individuals. Therefore it lives and works in the species through time. Individuals are born and perish; the species abides and preserves its own life, and lives all through the lives of the individuals. "The individual withers, but the race is more and more," they are like the leaves of the tree which perish annually while the tree itself lives through ages.

Thus every species must have its ground or reason in the eternal nature of things—in the Divine Idea and plan of the world, which is always realising itself, and is never completely realised and never exhausted. Therefore species are eternal and unchangeable. Individuals may, indeed, vary accidentally in one direction or another; but such variations soon disappear—the eternal *type* re-asserts itself, because there is a *reason* for it at the heart

of things. It serves a use, supplies a want, so that the world would be incomplete without it.

This metaphysical realism of Plato, and Aristotle—the reality and immutability of essence and type—became the basis of the *logical realism* of the schoolmen—that in thinking classes, we think not individuals only, but the common essences or creative powers which make and sustain the individuals; and the theory of *universals*, that all the individuals of a class are pervaded by one common essence which is universal or common to them all, and makes them to be what they are.

Hence, though individuals perish, the species is immortal.

**2. That species are mutable.**—The modern theory of development introduced by Lamarck and Darwin denies altogether the immutability of species, the eternity of type. All organisms are complexes of innumerable atoms, molecules and cells, and tend to vary fortuitously in every direction. Of these variations, some are checked and others are favoured by the circumstances in which the creature lives, and the mode of life which it has adopted by chance or compulsion. Hence organisms living under the same conditions, and following the same mode of life, have varied in the same directions more or less, and, by interbreeding and inheritance of acquired forms, have approximated to common types of structure, and thus constitute what we call species. But the reason which makes individuals to be of the same type or species is only temporary and accidental. They have been made to be what they are, merely by force of accidental circumstances; there is no universal reason why they should be such. When circumstances change species also change. Several species have ceased to exist even within the memory of man, *e.g.* the dodo, the auk. There is no 'eternal reason' for any particular form. No two members of a

That species have no eternal reason for existence, and are therefore mutable and temporary,

Varying in structure as the circumstances change.



species are really alike, and no type is really fixed.  
For

Indeed,  
they are so  
far from  
being  
necessary in  
nature, that  
they cannot  
even be  
distinguished  
clearly,

And so far  
from being  
eternal, that  
they are  
continually  
changing  
from one  
form to  
another.

Hence they  
must have  
been produc-  
ed by force of  
temporary  
circum-  
stances.

(1) There is no absolute line of demarcation between one species and another, as the Platonic theory assumed. They shade gradually into one another ; and between one type and another there are always *varieties*, which cannot be assigned with certainty to either the one species or the other.

(2) Species are not immutable ; organisms are constantly changing in structure—to some extent fortuitously, and to some extent in response to the forces constantly acting on them from the outside, and the changing conditions under which they live. Such differences, at first small, gradually deepen, and constitute new *varieties*, e. g., the numerous varieties of *dogs*, *roses*, *palms*. And varieties go on deepening until they become distinct species. Thus the *dog*, *wolf*, *hyaena*, *jackal*, were originally only varieties of one species ; but differences have accumulated until they are now regarded as different species.

The origin of species therefore, it is argued, must indeed be accounted for by evolution. But it cannot be accounted for by that view which makes evolution to be the force of reason, idea or purpose—the force of final cause or teleology. It can be accounted for only by fortuitous variation from within, and force of circumstances from without, tending to the survival of the fittest.

Still it is difficult to understand how species could have acquired the distinctness, uniformity and permanence which we see them to possess, if there had not been a common reason or 'idea' underlying every species and evolving the individuals—a common essence. But the underlying reason which makes the species need not be eternal as Plato supposed. The reason which evolves and

supports a species at one period of the world's history may not exist at another period. The genera and species of plants and animals which covered the earth in the early geological ages may have had reasons for existence which do not now hold good.

### § 38.

#### *The Individual and the Universal in Species and in Thought : Nominalism and Realism.*

The above biological question of the relation of members to their species corresponds closely to the logical question of the relation of particular to general ideas, and the metaphysical question of the ultimate relation of the individual to the universal in nature—of the many to the one. The metaphysical aspect of the question may be noticed first, as lying at the root of the others.—

(a) **Metaphysical nominalism** or **individualism**, also called *pluralism*, assumes that only individual or particular things possess reality, and that generals or universals either have no existence of any kind anywhere (which leads to logical nominalism); or exist only in thought, and as artificial products of thinking mind (logical conceptualism).

The biological question of species leads to the metaphysical question of universals ;

Is there nothing real in the world but the aggregate of individual things ?

This leads us back to the question of pluralism, atomism and materialism. For it follows from this view that the world is but an aggregate, or aggregate of many aggregates, of particulars—an arithmetical sum-total—as a heap of sand is the sum-total of many grains. There will, therefore, be no absolute unifying essence or power in the world, no evolving and co-ordinating plan, no self-realising idea. Such unity as exists anywhere will be only the mecha-

Nothing beyond the arithmetical sum-total of units ?

nical resultant of the forces of many particular things acting on one another, and holding one another in equilibrium. And both the life of the individual organism and the unity of the world as a whole, if it can be supposed to have any unity, will be the collective mechanical resultant of all the partial resultants contained within it.

This hypothesis would make it impossible to understand the unity, order and co-ordination which prevail in the world.

The difficulty here will be the difficulty which attaches to pluralistic and atomistic philosophy in general. The difficulty will be to understand how such originally unconnected particulars could have come together, and acted on one another so as to produce any definite results, and attain to any unity and order whatever : they would rather have fled asunder into empty space. It is the nature of individuals as such to exclude and repel one another. We should have to suppose, therefore, that space is finite ; and that particular existences are confined and compelled to work together within finite space, as the molecules of a gas are prevented from escaping when confined within a receiver. But even if the units of existence were thus confined within finite space, and if it were possible for such units (having independent existence and nothing in common) to act on one another, it would still be inconceivable how they could ever come to co-operate together so as to constitute a world.

It is equivalent to pluralistic metaphysic and materialism,

Thus nominalism and individualism in the metaphysical sense lead to a pluralistic *metaphysic* ; and are most clearly exemplified in the atomistic pluralism of materialism, making the world to be an aggregate of self-existent atoms assumed to act on one another mechanically.

And leads to the denial of real species in biology,

Their *biological* result will be that a species is nothing more than the aggregate of its individual members. The species 'palm' will be the arithmetical

sum-total of all the particular palms in world. We may, indeed, *speak* of a class-essence or idea as realising itself in all the individuals, but this is only a fiction of the mind—the fallacy of substantialising abstract ideas of the mind's own making. We construct general ideas and use general names; and this makes us fancy that there must be some reality corresponding to them. But this is an illusion of our own minds.

And to nominalism in logic, in either of two forms—

Thus the *logical* result will be that our general and universal ideas correspond to nothing real outside our mind. Two views with regard to them are possible :

(1) It may be supposed that, after comparing many similar individuals, we abstract from them their common attributes, and construct in our own minds a notion of these common attributes by themselves, or a notion of something possessing these common attributes, to the exclusion of all others; and thus form an abstract *concept* or class-idea—though there is no reality corresponding to such an idea in nature. This will be logical *conceptualism*, which is therefore consistent with metaphysical nominalism.

Nominalistic conceptualism,

(2) Or it may be maintained that we cannot form even subjective concepts of this sort; and that, when we think of classes of things, what is really present to the mind is nothing but the name and the concrete idea of some particular specimen of the class. It follows that we think wholly and sole in terms of concrete individuals, and that there is nothing really universal or common to all the members of a species except the general name, which is associated with every member, and, when pronounced, brings up before the mind some individual specimen. This is logical *nominalism* in its extreme form. It leads to the result that logic is essentially inductive—reasoning from individuals to individuals—and can never attain to universal and necessary truth.

Or absolute nominalism, which denies class-ideas even in the subjective sense.

(b) **Realism or the theory of universal essences.**—We have dealt already with realism in

Or are the powers and reasons which

make individual things as real as, or more real, than the things they make ?

If so these powers, being present in and working in all individuals, may be spoken of as universals or as essences,

Or what make things to be what they are,

e. g., the essence of the class, the life of the individual, the divine 'idea' of the world.

the epistemological sense, that we know the existence of reality independent of, and antecedent to conscious mind. The word, however, has a wider, and more strictly ontological sense.

Thus, in thinking of a single organism, we may think of a power which differentiates, co-ordinates, and sustains the individual parts as factors of one complex reality, and by evolving them gives concrete reality to itself (life). In thinking of a species, we may think of a power which evolves and gives existence to the individual members, and makes them to be factors of one living system of individuals (essence). In thinking of the world, we may think of a power which evolves and substantialises itself in the whole, and realises in the whole its own idea (God). Hence in the single organism, the plan or idea which, by its self-realising power, evolves and sustains the whole, and constitutes its life, is the universal in relation to the parts. In the species, the essence or self-realising power of idea which embodies itself in the individual members, is the universal in relation to the individuals. In the world, the Divine Idea which realises itself in the world as a whole, is the universal in relation to the individual things contained within the world-system.

Now, according to this way of thinking, the universals are not only real, but more real than the individuals which they evolve, co-ordinate, and sustain. The life which makes and sustains the whole organism is more substantial than its organs; the essence of the species is more permanent and real than the individuals in which it successively embodies itself; the Divine Idea of the world is more real than the things which it evolves. According to this view, then, the organism is not merely

the sum-total of its organs, nor a species, the arithmetical sum of its individuals, nor the world, the mechanical aggregate of its constituent atoms and molecules. In every case, the ultimate real is the universal which evolves, co-ordinates and sustains the plurality of individuals. Individuals are to the kind as the leaves are to the tree; the leaves are constantly budding forth and falling away again, while the tree itself lives for unknown ages.

In the middle ages this metaphysical realism was held in two forms, *viz.*, the hypothesis of

*Universalia ante res*—that universals exist before and independently of the individual things which they evolve and sustain, so that concrete embodiment in individuals is not necessary to their reality. Thus, they may be supposed to have existed first as laws, purposes, intentions, in the mind of God before the creation of the world—the theory of the *transcendence* of universals held by Plato, and suggestive of *theism*. And the hypothesis of

*Universalia in rebus*—that universals, to be real, must make themselves real by evolving and embodying themselves in individual things, so that, apart from such concrete realisation, they would be only abstract power or potentiality, and not real in the strict sense of the word—the view that universals are *immanent*, in the individuals which they create, taught by Aristotle, and suggestive of *pantheism*. And these realistic views were held in opposition to the nominalistic doctrine of

*Universalia post res*—the view that, though there are no universal essences in things themselves, yet the individual mind, after comparing individuals, arranges them into classes according to the attributes which they happen to have in common, and forms general ideas or concepts of every class, *i.e.*, notions of typical forms having all the common qualities of every class and no other. These subjective class-ideas were called universals *after* things, being only *in the mind* and formed by the mind by abstraction from things (logical conceptualism).

Different theories as to universals—

That a universal is something existent before and independent of individuals;

That it is something existent only in individuals;

That it has no existence at all except in thinking minds (conceptualism).

How the doctrine of universals appears in logic,

In *logic*, the above view of the reality of universals gives us *logical* realism—that we are not only able to form general ideas or concepts, but our concepts correspond to real essences or permanent powers in nature ; so that logic deals not with words merely (logical nominalism), nor with notions of mind merely (nominalistic conceptualism), but with real things as they are in nature ; and deductive logic, reasoning from universals to individuals, is as real as inductive logic, which reasons from particulars to universals. Extreme Nominalism recognises no universals neither *before* nor *in*, nor *after* things.

And in Philosophy.

In *philosophy*, it coincides with rationalistic methods of thought, and with monistic, theistic, and pantheistic results—all those which evolve the parts from the whole, and reason from wholes to parts, and interpret parts in the light of the whole, and regard the world as a unitary system, pervaded by plan, purpose and idea. From these collateral questions we return to the main question of—

## XII.

### THE ORIGIN OF THE WORLD.

#### § 39.

#### *Origin by Special Creation.*

**Primitive theories.**—There can be no doubt that the beauty, order and variety of the cosmos excited the wonder and curiosity of human beings from the first beginning of rational thought, and prompted attempts to explain its origin. The earliest attempt at explanation took mythological forms—those stories of generation and emanation which make up the religious and poetical thought of all primitive peoples, and form their substitute for science and philosophy. The distinguishing characteristics of such primitive theories were these :

Primitive  
conceptions  
of how the  
world  
originated—

Mythologies,  
founded on  
belief in  
magic,

(a) They were *anthropomorphic*, in the sense that they personified the forces of nature—ascribing natural phenomena to agencies more or less analogous to human beings, having passions, desires, and motives similar to those of the persons who imagined them ;

Assimilating  
the powers of  
nature to  
human  
beings,

(b) They were wanting in any adequate conception of *causality* (as transmission or correlation of energy), and accounted for all changes in nature by *magic*—a supposed way of producing effects in which there is no equivalence in quantity or kind between the effect and the supposed cause—between the energy put forth by the cause and that embodied in the effect. Such were the mythologies of the ancient Greeks, Norse and Celts, and such are the

And without  
any adequate  
conception of  
causality.



beliefs of the Africans and Australians of the present day.

And these primitive ways of thinking are preserved to the present day in the traditional tales which have been handed down from generation to generation in all countries, and are collected and studied under the name of folk-lore, in which we can read, to some extent at least, the philosophy and theology of primitive men.

Modern conceptions are founded on the principle of causality and include—

Scientific thinking begins with a more adequate conception of cause and effect—a cause adequate to produce the effect, continuity of connection between them, and equivalence of the amount of energy passing from the one and that re-appearing in the other. In civilised times the theories of the origin of the cosmos have been reduced to two—*special creation*, and *evolution* with or without the guidance of creative idea, *i. e.*, teleological or mechanical. Hence—

The doctrine of special creation—

**I. The theory of special creation.**—The one absolute and infinite reality is a personal being of infinite power and wisdom, who possesses within his own self-existent nature all that is needed for his own absolute perfection, and has, therefore, no need for a world of finite things beyond himself. Nevertheless he freely willed to communicate his own blessedness to finite beings made in his own image; and therefore first designed a world in his own thought; and then, with an act of absolute will, realised his idea by calling into existence a world of finite things and minds. But the absolute and all-powerful being has no need of means, nor therefore of intermediate processes of development and growth. Therefore he brought into existence all the contents of the world in the same forms which they now have, by a single act of volition in a moment of time—all its nebulae, stars, suns, planets and species of plants and animals—and invested them with

That things were created at the beginning just as they now are,

their powers of action and self-preservation ; so that all things have remained essentially the same since the day of creation. The history of the world has been a history of how things have preserved themselves in, or declined from, the state in which they were originally created—not a history of self-development and upward progress. Hence there is no use of inquiring further how the world and its inhabitants have come to be what they are. They were created just as they are, and in a moment of time, by the word of God Almighty—God spake, and the world started into being out of nothing. God is infinite ; the world is finite ; therefore God as cause is sufficient to account in all respects for the world as effect.

And that  
no evolution  
was required.

But the more the structure and history of the world are studied, the more probable does it appear that the world has arrived at its present form by a gradual development from uniformity to variety, from lower forms to higher ones, from simpler to more complex. When the layers of rock which form the outer crust of the earth are explored, it is found that the oldest rocks are of igneous origin, *i. e.*, have been formed by the cooling and consolidating of substance originally liquid from intensity of heat. The outer layers, on the contrary, are sedimentary, *i. e.*, consist of consolidated beds of mud, sand and conglomerate, formed by the washing of rivers and seas upon the original igneous rocks, disintegrating them into mud and sand, and depositing the loose material at the bottom of lakes and seas. And it is seen that, these layers of hardened mud and sand—these ‘stratified’ rocks—contain the prints and petrified remains of almost innumerable plant and animal species, which had appeared and lived for ages upon the earth, but

But the  
world has the  
appearance  
of having  
come to be  
what it now  
is by a pro-  
cess extend-  
ing over  
many ages ;

Evidences of  
this in the  
structure of  
the earth,  
and remains  
of extinct  
species of  
plants and  
animals,

Rising by gradual stages from simple to more complex, up to the highest forms now existent.

had been supplanted by other more highly organized forms, and gradually died out. Thus some strata, such as coal and limestone, are composed almost entirely of the remains of extinct plants and animals. Those found in the lower layers are different from any that now exist. In the uppermost layers, species are found approaching more closely to those still extant. And the remains of dwellings and implements used by many successive generations of human beings, and preserved in recently deposited layers of soil and river-beds, show that man appeared latest of living species ; and has risen by slow progress of mind and art, from a condition but little above that of animals, to his present state of civilisation. These facts then point, not so much to instantaneous creation, as to gradual evolution. And the results of geology and biology are confirmed in the main by those of astronomy, which tend to show that even suns and planets pass through stages of growth and decay, and that our own earth has passed through a long process of formation, passing from vapourous to liquid, and from liquid to solid.

Hence a vast period of time seems to have been required

Now it appears certain that vast periods of time must have been required for these changes—not only for the condensation of suns and planets, and for the cooling and hardening of the earth into a solid globe, but also for the sculpturing of the earth's surface into mountains and valleys, river-beds and seas ; by the chemical and mechanical action of water ; and for the appearing and disappearing of the almost innumerable plant and animal species which have successively inhabited it. Attempts indeed have been made to estimate the possible duration of organic life on earth during past time, but the results have been rather

divergent. Geologists, judging from the time required for the growth and decay of successive species, have claimed some three or four hundred millions of years for the past history of life on earth. Physicists, on the contrary, judging from the probable duration of the sun's heat and light have been for reducing the time to twenty, or even ten million years. Another calculation is based on the time required for the wearing down of the primordial igneous rocks by air and water and the laying down of the sedimentary strata. It has been estimated that the sedimentary beds of different ages, if laid above one another, would give a depth of about 265000 feet; and that about one foot of sediment (sand or clay) is being laid down every century. From this it would follow that some 26 millions of years have been needed for the deposition of the whole. Another calculation has been based on the accumulation of salt in the water of the sea. This leads to the conclusion that the present ocean must have existed for some 90 millions of years.

Before the earth and its inhabitants attained their present forms.

Different methods of calculation, geological, physical, etc.

Uncertainty of results.

But all such calculations are very uncertain, and fail to tally with one another, the circumstances being so imperfectly known. The argument claiming most authority, has been the mathematical one founded on the duration of the sun's heat. But the duration of its heat depends on the origin of heat. It has long been assumed that the sun's heat must be due to the pressure and friction of the sun's atoms as they gravitate towards its centre, and it has been shown that only a few millions of years can be accounted for in this way. But recently another source of light and heat seems to have been discovered, *viz.*, in the disintegration of atoms, liberating the energy stored up within them, as is seen going on, it is believed, in the disintegration of the substance called radium. If there is extensive disintegration of atoms of going on in the substance of the sun, then its heat and light

But these facts point to origin or creation by gradual evolution.

may be kept up for an inconceivable length of time. This makes it probable that the longer period claimed by geologists is within the mark. At all events, evidence derived from nature itself seem to point to the conclusion that physical creation is not a momentary act but a continuous process. Hence the theory of the

## § 40.

### *Origin by Evolution.*

What then is meant by evolution ?

The theory is founded on an analogy between the growth of individual organisms from germ to maturity, and the origin of the world with its organic species from some simpler form of substance.

The fact of evolution generally admitted but the method much disputed.

**II. The theory of evolution**—The above facts seem to warrant the conclusion that the earth on which we live, and the species of living creatures inhabiting it, have attained their present form, not all at once, but by a slow process going on through a long period of time ; and that this process has been on the whole, from lower to higher, from less complex to more complex, from inorganic to organic, from lifeless to living ; and therefore a process of evolution or upward progress. In fact it would appear that, just as the individual plant and animal attains its final complexity of organization and fulness of life by development from the relatively homogeneous albumen of the germ, so the earth, with its species of plants and animals, has come to be what it is, by gradual differentiation and re-adjustment, from some simpler form of substance. Hence one of the greatest questions of both science and philosophy comes to be this : what power has prompted and guided this differentiation and co-ordination of the world-substance, which we call evolution ? "The fact of organic evolution is admitted by all schools of biology, but about the causes of the process, and the manner in which it takes place, there is still wide diversity of opinion." The two principal

hypotheses may be considered under two heads, the *mechanical* and the *teleological*.

(A) *The theory of Mechanical Evolution.*

This consists in the attempt to explain the origin of the physical cosmos, and the world of living creatures and rational minds, as a mechanical resultant of the interaction of atoms. It thus excludes the operation of any plan, purpose, or design ; and therefore excludes any prompting and controlling mental power. Indeed it makes mind to be a product of the world-process without having had anything to do with its causation—its effect and not its cause. It begins by assuming matter as self-existent in the form of atoms, moving about with self-existent motion, in self-existent space ; and assuming that their motions are motions to and away from one another—attractions and repulsions—and that by these motions they strike against one another, form aggregates, and disintegrate again, according to the strength of the resultant forces produced by their combinations and collisions.

Now, given infinite time, and an infinity of atoms moving about and interacting according to self-existent laws of motion and impact, innumerable combinations would be produced. Of these the majority proved unstable and fell to pieces again, "ruining along, the illimitable inane." Some proved comparatively stable. Among these, at last appeared the world on which we live, and the brains which are the substance of our feeling and thought. "It was only after attempting every possible form of motion and combination that the forces of nature arrived at the present order of things." And "the world progresses in a manner which has no resemblance

View that evolution can be accounted for by the interaction of atoms and forces, without any unity of system.

For out of an infinite number of combinations in infinite time,

Some must prove permanent and self-preserving for a time.

to human design ; nay, its essential method is such that, measured by the standard of human reason, it can be regarded only as the blindest chance." But we have here to distinguish between the evolution of the physical world or *cosmos*, and that of the *species* of living creatures—cosmological and biological evolution.

And such self-preserving combinations of atoms will constitute worlds and organisms.

How the physical cosmos was produced in this way ;

The nebular hypothesis explaining

The origin of planets and satellites,

(a) **The mechanical theory of cosmological evolution** is now based on the 'nebular hypothesis,' suggested by the mathematician Laplace.—There must have been a time when the matter now composing the sun, planets and earth, was diffused in the form of a *nebula*, or cloud of gas or dust, (like the many other nebulae still to be seen with a telescope on the outskirts of the cosmos), extending beyond the range of what is now the outermost planet of the system. The atoms composing the cloud were in a state of extreme agitation, producing light and heat by their mutual impact and friction (as appears to be the case with other nebulae). But, owing to the gradual dissipation of the energy of movement which thus kept them diffused, they began to condense by gravitation towards their centre of greatest density ; and in so doing began to revolve about that centre. As the cloud thus contracted more and more, the revolution became more rapid, and smaller masses of condensing cloud were thrown off and left behind by the main cloud. These isolated masses went on revolving about the central mass, and at the same time contracting towards, and revolving about, centres of their own, and thus became planets—some of these, in their own contraction, throwing off still smaller clouds, which condensed into secondary planets, satellites or moons. The main mass condensing towards the

centre of gravity of the whole, became the sun. The interior planets, being the last to be thrown off, and therefore the smallest in size (Mercury, Venus, Earth, Mars) have long ago condensed into solid globes, and become habitable for living creatures. The outermost masses (Jupiter and Saturn at least) being very large, have taken longer to condense, and are still probably incandescent bodies, shining by their own light like minor suns, and surrounded by systems of moons like planetary systems of their own. The earth has been a solid body for probably three or four hundred millions of years; and for most of that time (ever since it became cool enough) there have been atmosphere, water, clouds and rain wearing down its surface and forming sedimentary rocks and soil, on which plants and animals have grown and multiplied. And this formation of the world took place wholly, it is maintained, by the mechanical forces working on matter, without any intention, plan or design. Hence also

Of rocks and  
seas, clouds,  
rain and soil,

And of plants,  
animals.

(b) **The mechanical theory of biological evolution**, or of the evolution of life and species of living creatures on the earth's surface, explains the origin of the different species of living creatures by assuming two principles as supplementing each other *viz.*, differentiation from within and changes imposed from without—

How species  
of living  
creatures  
were produc-  
ed by co-  
operation of  
two agencies,

(1) *Differentiation of organisms by fortuitous variation from within, with natural selection of the fittest.*—We must at the outset assume the principle of *abiogenesis*—that molecules of C, H, O, N, came together fortuitously, and formed the first globules of protoplasm, in which they were so arranged and co-ordinated as to produce that reaction of the whole upon the parts, and that

(1) Fortuitous  
variation in  
the proto-  
plasm of  
germ cells,  
and therefore  
from within,



Leading to  
variations in  
the orga-  
nisms  
themselves,

Which are  
handed down  
by inheri-  
tance,

Some of these  
spontaneous  
variations  
proving to be  
beneficial,  
and leading  
to the  
preservation  
of the  
creatures ;

Others to be  
detrimental,  
and leading  
to the  
extinction  
of the  
creatures

power of the whole to adapt the parts to itself, in which life consists ; and that power of self-multiplication by division in which growth and reproduction consist. Hence protoplasmic cells, though apparently simple, are really extremely complex, and therefore liable to variation. In other words, a new cell always differs from that from which it was derived ; and, as no explanation can be given of these variations, they must be regarded as fortuitous. And it must be assumed that variations, thus appearing spontaneously in cells, are transmitted by inheritance to the new cells derived from them. And as the higher plants and animals are built up of myriads of cells, minute variations in the structure of individual cells, when accumulated by inheritance, will at last affect essentially the structure and working of the whole. But the life of every organism is a continual struggle for self-preservation against the external forces of water, earth and air, and against rival organisms. And the changes produced by fortuitous variations of cells are either to the advantage, or to the disadvantage, of the organism in its struggle for existence, in that mode of life which it has adopted by chance or compulsion. Hence, a series of unfavourable modifications, accumulated by inheritance, will put a species to a disadvantage in the struggle, so that after a time it will be 'weeded out' and eliminated by force of circumstances ; and its place occupied by forms better adapted to the circumstances. On the contrary, a series of beneficial ones will give a species the advantage for a time, and it will flourish and multiply until the circumstances change to which it is adapted, and new circumstances give the advantage to newer forms, by which it is gradually superseded.

Thus, slow but incessant modifications are going on, and changing, for better or worse, the adaptation of plants and animals to their circumstances leading some to their decline and extinction in the struggle for existence, and others to their preservation and multiplication. Out of innumerable forms produced by spontaneous modification, nature *selects*, as it were, the fittest for preservation. In this way, by spontaneous variation and natural selection of the fittest, the original particles of protoplasm, which originated by abiogenesis, have become differentiated, in the course of millions of years, into the many hundreds of plant and animal species which now fill, with their life, every department of earth, water and air.

Those forms which prove to be fittest for their circumstances, survive;

Those less fitted, die out.

This is the theory of development by *natural selection*, first worked out fully by Darwin in his "Origin of Species," 1859, which has marked an epoch in science and philosophy.

Darwin.

According to this view, therefore, nature attains its results, not by directly aiming at them (by purpose or design), but by working at random in all possible ways, some of which cannot fail to be successful. Huxley has illustrated nature's method by the following comparison. Suppose that our purpose is to kill a hare in a field of clover. We might set about it in either of two ways. We might get a thousand guns, and fire them off into the field at random; or we might get a single gun, and aim it straight at that hare. The latter would be the surest and most economical method; but the former, Huxley thinks, is nature's way. Out of thousands of germs which nature produces, only one or two, perhaps, prove successful, and grow into healthy plants or animal.

Nature's method is not design, but innumerable trials and failures and a few successes by chance.

(2) *Modifications imposed on organisms from without by the forces of their environment.*—The theory of natural selection may be supplemented by another hypothesis, *viz.*, that of forced adaptation of organic structures to environment,—

(2) Variations imposed upon the organism from the outside by force of circumstances.

Which also  
are trans-  
mitted by  
inheritance,

And go on  
accumula-  
ting until  
they become  
organs and  
limbs.

Thus nature  
compels  
creatures to  
struggle for  
existence,

And the  
struggle in  
its different  
forms pro-  
duces differ-  
ent organs to  
carry on the  
struggle.

Contrast  
between

suggested by Lamarck, and adopted by Spencer as the basis of his philosophy of body and mind, and finally accepted by Darwin also, as supplementary to his own hypothesis of natural selection. It is difficult to conceive how fortuitous variations alone could ever lead to any definite result. But there is another way of accounting for modifications of structure without appealing to chance. An organism is constantly acted on by external forces and compelled to react in order to preserve itself; and the effort to react against external forces gradually modifies the structure of the organism itself, and produces parts specially adapted to special kinds of reaction. Thus it is compelled to assimilate foreign materials as food; and the effort to do so gradually concentrates itself in one part of the organism, and, by continued exercise, produces an organ specially adapted to digestion. It is compelled to move about for protection and prehension of food; and the continual effort to move, produces at last parts specially adapted to the work of locomotion. It is acted on and affected by light; its reaction concentrates into a part, and produces a special organ of vision, and so on. And modifications of structure thus acquired by effort and practice, though at first very small, are transmitted by inheritance, and go on accumulating from generation to generation; and result at last in the complex and highly co-ordinated organs of locomotion, digestion, vision, etc., which distinguish the higher animals and man. The different phases through which these organs have passed can still be seen in the lower animals, and are repeated in every embryo before birth. This is the theory of development by *inheritance of acquired modifications*.

We may contrast the two views in this way:

according to the former view, the organ makes the function; the organ comes first, and we use it; nature provides us with organs of movement, articulation, etc., and we walk, talk, etc. According to the latter view, the function comes first, and makes a special organ for itself; nature compels us to try to move, talk, etc., and the effort develops the organs.

the two theories.

More recently, however, closer experimental investigation has led Weismann and many other biologists to the conclusion that modifications of structure thus acquired by the efforts of the individual, however beneficial they may be, cannot modify in any way the germ-cell out of which the new creature grows, and therefore cannot be inherited by the next generation; and therefore cannot, by accumulation, produce new organs, or cause any permanent modification of form; nor therefore contribute to the improvement of the race and development of species. Only changes of structure that take place spontaneously within germ-cell itself, can pass over into other cells derived from it, and be transmitted by inheritance. Therefore we must fall back again on the theory of fortuitous modification of germ-cells, and natural selection of the modifications best adapted for the preservation of the race—the survival of the fittest—the original theory of Darwin. Nevertheless the followers of Lamarck have recently brought forward strong evidences to show that acquired modifications are by some means inherited.

But the theory of inheritance of acquired modifications is now rejected by many,

And evolution explained wholly by internal variations of the germ-plasm.

The above, then, are attempts to explain the origin of life and living species by the mechanical working of the forces of nature, without any regulating plan or purpose—*naturalism* and *materialism*—reducing organization and life to be of the nature of clock-work, though of inconceivable complexity.

Both the above theories explain evolution by mechanism,

It should be observed, however that the above two views have each an important philosophical bearing, and lead to different philosophical results.

But the Lamarckian is the more purely

mechanical  
theory.

If evolution can be explained wholly in the Lamarckian way, then organism and mind will be just what the physical forces of the world make them to be. Life and thought will be a passive product of nature, as much as a satellite or a fungus; and will have no independent reason for existence of their own. Mind will have no other end than that of preserving its own physical organism for a time against the forces of nature. Life and thought will be nothing but a continual adapting of internal processes to external circumstances. But the germ-plasm theory may be interpreted in a different way. According to it, the modifications of the germ are not determined by the forces of the external physical world; and they *may not be fortuitous*. They may be determined by the plan and purpose of the whole, working in the parts. Hence it will be possible that life and mind, instead of being made to be what it is wholly by external forces, may be a manifestation of the power which works in the whole, and makes and co-ordinates the physical forces themselves: and which, instead of being a passive product, may have ends of its own to realise, and may have the power of making natural forces subservient to its own ends. Thus, instead of mind being made by the physical world, we can conceive the physical world as means for working out the ends of mind. This, then, will be the idealistic or teleological theory of the world and its evolution. Hence—

For  
Weismann's  
theory is con-  
sistent with  
idealism and  
teleology.

## § 41.

### (B) *The theory of Teleological Evolution.*

Deficiencies  
of the mecha-  
nical theory

The fundamental weakness of the mechanical explanation of nature is the prominence which it is compelled to attach to chance. The whole series of integrations and disintegrations will depend (1) on the original *collocations* of the atoms, *i.e.*, their positions in relation to one another in space, which must be supposed to have been by chance; (2) on the *direction* and *degrees* of the

forces of attraction and repulsion originally attached to the atoms, which also must have been by chance; and (3) the new *combinations* of atoms, which depend on the original collocations of the atoms and on the force and directions of their attractions and repulsions, and are therefore themselves fortuitous. Now it is difficult to imagine how the exceedingly complex adaptation of means to results which constitute nature, and especially organic nature, could have been produced in this way, even with the help of natural selection. The two forces assumed (attraction and repulsion),—the one tending to accumulation and the other to dispersion, could produce no result other than a lifeless equilibrium,—making the world to be a dead cinder in which all activity has ceased. The real result can be accounted for only by supposing that the processes of nature which produced them were guided by idea and purpose—some agency which not only drew forces of nature into activity, but guided their activities towards these particular results.

It makes the complex co-ordinations and adaptations of the world to be the result of chance.

Or, if they were not produced by chance, then there was a reason for them

And the only reason for things is end or purpose.

- And this would imply that the result was in some way present and operative from the beginning—the future in the present. It is the peculiarity of the materialistic system that it regards only the present as real (and the past in so far as it is present in its effects); all change is by forces pushing from behind, without knowing what they are doing; the future is of no moment of all. But if the world be a system within an absolute, then the future must be a part of the whole as much as the past and present. And the future working in the present is idea. Hence, as the past is actively present still in its effects, so the future must be actively present as impulse, purpose, idea, guiding the forces of the past and present. In short, the future must be a good to be realised, and therefore be working in the present as idea; and, as a factor of the

And end means the future working in the present,

Which, again, means idea realising itself.

absolute system, the future good must draw the forces of the present towards its own realisation. The cause which works out the evolution of the world must be *final* cause. "We must not hesitate to recognise the existence of a force acting with a purpose ; only we must not represent it as directly interfering in the mechanism of the universe ; we must conceive it as rather within the mechanism, as a *final* cause." In support of this teleological view we have—

Hence evidences tending to show that the world is a product of reason ;

That all change is ultimately the realising of good, and regulated by purpose.

Evidences of this:—

1. From the nature of causality itself :

1. *Evidence from the nature and conditions of causality itself.*—The mechanical theory is inconsistent with any right understanding of the nature of causality and change. It is not enough to say that movement, and therefore change, are self-existent. Why should they exist at all? Why should things change? There must be some *reason* for it at the heart of the things themselves. The reason must be that change is necessary for the attainment of results, and the results must be necessary for the attainment of some good, and the good must itself be the force which produces the changes and results, as means towards its own realisation as final result. In other words, the result must be present from the beginning of change, and must be the *motive* force which prompts it, and the *form* which regulates it, *i. e.*, it must be present as an *end* to be realised. For all change is the doing of work, and all work is done as a means to an end ; and there can be no change at all without some end to be attained by change, some good to be realised. This is equivalent to saying that the future good or end is a force which determines and realises itself through present activity—that is, self-realising *Idea*. In short, there can be no production where there is not something to be produced—and where

the something to be produced does not itself prompt and guide the producing force. A world of random changes, (even if such changes were possible) would *produce nothing*. We have also—

2. *Evidence from the adaptation of means to results seen in nature.* It is argued above that all change must have a *reason* for it; and that the reason must be the need of attaining a definite result; and that the result must be present ideally as realising force, from the beginning of the change; and that therefore there is no such thing as random and meaningless change. This conclusion, arrived at by analysis of the idea of causation, is confirmed inductively by the study of nature itself.

2. From the constitution of nature itself, including—

For the insufficiency of the mechanical explanation appears especially, when we attempt to account for the adaptation of means in nature to the production of desirable results. And it appears at its greatest, when we try to account for the almost infinitely complex adaptations of means to ends, and of lower ends to higher ones, that is needed for the production and support of life. Life begins, so far as we know, with the protoplasmic cell, but the cell is already an unthinkable complex system of co-ordinated atoms and molecules, subject to the control of the whole over the parts. The higher organisms are composed of millions of cells, so modified and co-ordinated as to fulfil innumerable functions for the support of circulation, respiration, assimilation, sensation, thought; and all these functions are co-ordinated by, and made subservient to, the life of the whole. How can such adoption of means to uses be accounted for? And the only way in which such complex differentiation and co-ordination of parts

Evidence of co-ordinating and adapting power,

Of a one working in the many,

Of the future determining the present,



Of good  
realising it-  
self.

can be understood, is by supposing that, in some way, the result ideally precedes and determines the means by which it is itself worked out. This can be conceived only by supposing that the result is a *good* to be attained, and that the good is present from the beginning as *idea*: and that it is the idea that prompts and guides the activity which works in and through the means, and thereby works out the result. This is equivalent to supposing that the present is a state of incompleteness and imperfection, that a more perfect state or higher good is possible, and that the evolution of the cosmos is from a present imperfect state towards a more perfect one. And this means that the future good exists in the present as prompting and regulating power; somewhat as the idea of future good exists in the finite mind, and, by prompting and guiding action, works out its own realisation. Therefore the adaptation of means to ends in nature can be explained only by final cause or teleology.

This view, that the evolution of the world and of living being is determined by an end or good, and consists in the differentiation and co-ordination of means for the realisation of ends is the theory of *teleological evolution*.

But there are  
different  
ways of expl-  
aining how  
idea has evo-  
lved the  
world—viz.,

By the  
doctrine of  
transcen-  
dence.

And that of  
immanence.

And the idea which is realised in or through the evolution of the world may be understood in two ways. (1) It may be supposed that the idea is *in* the mind of God, as a plan or design is in the finite mind, *e.g.*, the mind of the architect. This leads to the deistic conception of God, or theory of *transcendence*, or view that God operates on the world from the outside as the human artificer operates on the materials provided for him by nature. Or (2) it may be supposed that the divine idea is not outside the world but is itself the energy which evolves the world, resolving itself into the different forces of nature and mind, and regulating their combina-

tions as means towards its own realisation as concrete spirit, conscious of itself as the thinking and creative power of the world. This leads to the pantheistic, and panentheistic views—the former identifying God and the world; the other distinguishing them as subject and object, what thinks and what is thought—but both teaching the *immanence*, or immediate presence and activity of God in the world.

The result of this teleological view of the world is, that nothing contained within the world as one of its constituent factors is real in the sense of being self-existent (as materialists conceive their atoms to be). Every constituent of the world exists as a more or less active *factor* of the world, *i. e.*, it performs a certain work, fulfils a certain function. It exists, therefore, for the sake of the function which it performs, and so long as it performs it and is needed to perform it. Its *substance* does not consist in any indestructible material (such as matter is supposed to be); it consists in the *use, purpose, intention*, which brought it into, and keeps it in, existence—in the *need* which it supplies, the *function* which it fulfils in the plan of the whole. The *essence* (if we need distinguish essence from substance) of the particular thing consists in the particular mode in which it reacts upon other things in order to fulfil its function in the system. Matter is the material which it uses and applies in the performance of its function. And it is by fulfilling its function that it preserves its own existence, and asserts its own reality as a substantial being.

The above view of creation leads to a particular view of reality and worth.

Finite things are made to be real by having ends to fulfil,

But their ends are contained within higher ends,

And ultimately within one-absolute end,

The objections to the above teleological view of the world are largely based on the habit of regarding teleology from the standpoint of human interests—assuming that, if the world had any purpose at all,

Objection to the teleological view founded commonly on the supposition

that the world, if adapted to any purpose at all, must have been adapted to the convenience of men ;

But it is not so adapted ;

Therefore there is no teleology.

But such an anthropocentric view of the world is groundless.

Indeed, if the monistic view of the world be accepted, that it is a unitary system contained within an absolute, then the teleological view follows necessarily.

its purpose must have been to serve as a dwelling place for human beings, adapted in all its parts to the interests of men. Hence, if it can be shown that the world is not so well adapted as it might have been for human welfare, and that many parts of it are of no use whatever to human beings, *e. g.*, the world of stars and nebulae, then teleology seems to fall to the ground. "Man is wont to measure the greatness and wisdom of the universe by the duration and advantage it promises to his own race ; but the past history of the globe by itself shows how brief a spell in its duration is the history of the human race."

We must admit, then, that the purpose which gives existence and co-ordination to the world of finite things is an absolute purpose, in which human life is included as a means. Though this consideration seems to lower the dignity of man, as compared with the old view that the whole world existed for the service of man, yet it makes clear the all important facts that the worth and perfection of man consists in his function as a factor in the evolution of an absolute purpose.

**The reason and necessity of the teleological view of the world.**—This view of biological evolution combines most naturally with the theory of germinal variation (above). For the variations within the germ which determine the evolution of the organism need not be 'fortuitous', as Darwin supposed. Rather they must be determined by the plan and purpose underlying the whole organic world. Just as, in the individual organism, the growth of an organ, the restoration of a lost limb (as in many lower animals), the healing of a wound, the throwing off of a disease, is brought about by the reaction of the whole organism upon the parts, of the plan or form upon the details ; so the evolution and conservation of the whole world,

organic germs included, must be determined by a plan or form working itself out in the whole. This was the original view of Weismann himself.

The determination of parts by whole, of details by immanent form, of present by future, follows from the conception of the world as a whole contained within a single absolute (monism). The essence of the world, the absolute itself, will be above space and time. Therefore in it the past, present and future will all be present in one absolute reality of power, in one *now* and *here*, so to speak. The history of the world will be the working out of this reality in time and space. For space and time suppose an ultimate unifying power which gives unity and connection to all the points of space and moments of time, making space to be extension, and time to be duration ; without such unity in plurality there would be no space nor time. Therefore, in this world of space and time, the distant will be present and operative in every point of space ; the future, in every moment of time. This is equivalent to saying that every change is made to be what it is by the plan, form, purpose of the whole—the notion or idea which is the essence of the absolute, and is the spring of all change and gives form and direction to all change, and therefore to the internal modifications of the living germ. This is the real meaning of teleology or final cause.

Because in that case the future will be a determining factor in the system.

And therefore absolute idea will be the evolving power.

**Note: Material and Final Cause.**—The difference between mechanical (material) and teleological causality is best understood from Aristotle's analysis of cause. A cause, he shows, includes four factors which he calls causes in a subordinate sense :—

Aristotle's analysis of cause :

(a) The *material* cause of a thing is simply the material of which it is composed, and which

Material ;

is necessary to its production, as the marble for the statue, the wood for the boat.

**Formal ;**            (b) The *formal* cause is the form which has to be imposed on these materials to make them serve the purpose intended—the form of hero or god which the sculptor imposes on his marble, that of a boat or house which the builder imposes on his wood or bricks.

**Efficient ;**        (c) The *efficient* or working cause is the energy which imposes the form on the materials—the strength of the sculptor's or builder's arm, which makes the marble to assume the form of a hero, the wood that of a boat and so on.

**Final.**            (d) The *final* cause is the *end* (finis) *purpose* or *reason* for which the efficient cause imposes this particular form on the material. The new product, Aristotle thought, must be of some use, must serve some purpose; and this use or purpose is the ultimate reason for its production; and the ultimate cause of a thing is the reason which led to its production. Its reason is therefore its final and ultimate cause.

**The idealistic theory.**        Thus reason is the spring of all energy of change and production. There was a reason for the form; the form, as idea, guides the energy into a definite channel, and thereby makes it to be real, efficient and productive, and thus imposes itself as form upon the matter. Thus the product is form imposed on matter by energy of idea springing out of reason. Now idealism applies this to the world: "In the beginning was the reason" of all things (logos), and the reason was in God, and was God, *i. e.*, was the source of the creative and formative energy which evolves and sustains the world.

**The naturalistic theory.**        But according to the materialistic theory, the material and the efficient—the matter and the force—are the only real causes. Both are assumed without any explanation. The form is not a cause but a result of chance. Final cause (teleology) has no existence except in the works of men. The efficient causes or forces of nature operate blindly without reason or end. There is no immanent idea or purpose.

## PART III.

### SOUL.

#### XIII.

##### SOUL AND BODY.

###### § 42.

###### *Life, Consciousness, Soul.*

**Life and Soul.**—We have been regarding life as the power which manifests itself in the organism as a whole, differentiating and co-ordinating the parts, and making them co-operate together as means for the working out of its own plan and purpose—the performance of that determinate function in the plan of the world-system for which it comes into existence. What, then, is the difference between life and soul? Linguistic usage, while uniformly ascribing life to plants as well as to animals and men—making life and organization to be co-extensive—ascribes soul to men while denying it to plants, and usually to animals. “The plant lives; the animal lives and feels; man lives, feels and thinks.” The plant has life; the animal has life and consciousness: man has life, consciousness and thought. And thinking is the *proprium* of the soul.

What difference is there between life and soul,

As manifested in plants, animals and

With regard to the origin of soul two hypotheses are conceivable :—

(a) We may suppose that the life which evolves and works in the body, and the soul or self which feels, thinks and wills, are distinct things different in kind and origin. We shall then have to suppose that at some point in the life of some living beings (human beings at

Are they essentially different things?

least), the soul is introduced into the living organism, and brought into connection with the life of the organism, in such a way that it becomes conscious of, and is able to regulate more or less the processes of life. We shall then have to consider the question whence the soul comes? Did it exist somewhere before it entered the body, and connected itself with the bodily life? This is the theory of the *pre-existence* of soul, still held by many. Or was it created by God and implanted in the body at some point in its pre-natal growth? This is the theory of special creation.

Or are they  
the same  
thing at  
different  
stages of  
development?

(b) Or may we suppose that the same principle which animates and evolves the body, (*i.e.*, the life of the body), in so doing develops thereby its own nature to such a degree as to become conscious of its own states and activities, and of itself as the subject of them; and by so doing attains to some degree of independent existence, and thus rises, from being life merely, into being soul at the same time. This will make the thinking soul to be only a more highly developed phase of the life which evolves the body.

The common  
distinction—  
Life, a power  
limited to the  
individual  
body;

Soul, a power  
capable of  
passing away  
from the in-  
dividual  
body, and  
entering into  
some other  
phase of  
existence.

For the principle involved in the common distinction of life and soul appears to be this: life is thought to be limited to the particular organism in which it manifests itself, and to begin and to end with it. Soul, on the contrary, is thought to be something having existence of its own, independently of this particular organism in which it manifests itself for a time, and passing away from it at last, and manifesting itself in other ways. These two ideas may be reconciled in this way: we may suppose that soul is indeed a life-power, *viz.*, a power which seizes on molecules of C, H, O, N, brings them together into an organic cell, and

differentiates the one cell into many, and integrates the many cells into a complex organism, and manifests itself in the working of the organism as a whole. But we may suppose, at the same time, that it is a life-power which, through this organism, has organized itself into being a relatively self-subsistent centre of energy; and which, after evolving itself in and through a particular organism, becomes at last independent of this particular organism; and retains the self-conscious individuality which it has won; and passes on to fulfil its function as a factor of the world system in some other way, and in some other connection. In this way we may conceive life as developing into soul; and may conceive life and soul to be the same active, self-developing, self-organizing power at different stages of its development into self-sufficiency. In plant and animal, it is only life; in man, it has perfected itself into being self-conscious, self-regulating soul, and attained a degree of self-sufficiency which makes it to be independent of this particular body. Hence we may consider the different stages of its development.—

Is it possible then that both are phases of one organising activity and that that activity can rise from being life into being soul?

#### §143.

**I. The Organising Activity as sub-conscious Life.**—Hence we may say that life is the power which seizes on atoms of C, H, O, N, builds them up into a globule of protoplasm, and differentiates it into a cell with nucleus, cell-plasm and cell-wall; divides the original cell into two, four, eight, and ultimately into thousands and millions of cells; differentiates and adapts these to different uses, and integrates them into

How then is life to be understood and described according to the latter view?



It is a power which builds up, differentiates and co-ordinates all the organs of the body, and makes them all co-operate for a common end ;

many complex organs adapted to different functions ; and co-ordinates these many organs and functions so as to make them all co-operate together as factors of one whole : and from the whole, again, reacts upon and controls all the organs and their functions. Thus life may be said to be a power which evolves the organism in order through it to realise and perfect itself ; that is, to raise itself from being abstract power into being concrete life.

And comes into existence not by chance, but because there is a need for it in the system of things.

And we may even go farther, and say that the essence, or moving and evolving force in which life consists, is the force of want, and therefore of purpose or end. Life must be needed in the system of things ; there must be a purpose or end for which it is required. Therefore the whole system of things may be said to combine in the production of life, because life is required by the plan of the whole. Natural science may endeavour to find a cause of life among its immediate physical antecedents. But, though mechanical conditions co-operate in the production of life, the real cause lies far behind the mechanical antecedents, and beyond the reach of observation and experiment, *vis.*, in the plan of things as a whole. We must here notice, however,

But there are several theories as to the origin and nature of life, e. g.,

**Different theories of Life**, and their bearing on the nature of God and mind. For different views have been held regarding the evolving and co-ordinating power here called life. Thus—

That it is nothing but the mechanical resultant of physical forces,

Some say that life is *mechanism* and nothing more—that the combination and interaction of physical and chemical forces is all that is required to bring together the molecules constituting the protoplasmic globule, differentiate the original cell into many cells, and co-ordinate these into organs and organism ; and that the power which, from the organism as a whole, reacts on and regulates the organs, is nothing but the mechanical *resultant* of

all the forces of the particular cells and organs. There is no special 'vital power'—nothing more than the forces—mechanical, chemical, electrical, thermic and actinic—which we see working in physical nature; no organizing purpose or idea. The mechanical and chemical forces are able to organize themselves, and build themselves up into the living organism, and to preserve and to propagate the life of the organism. Many processes once thought to manifest such a special life power have been proved beyond doubt to be mechanical; and products once thought to be peculiar to organism, and to be the work of a special vital force, have been produced artificially in the laboratory. There is no real doubt, therefore, that the remaining processes and products of life will be found, some time, to be mechanical also.

And that the living organism is merely a machine.

We may here ask therefore: if the mechanical theory could be established with regard to organic life, what conclusion would have to be drawn with regard to soul and mind? Two views seem to be possible. We might admit the organism to be mechanism, and yet hold that mind is a function of an entirely different substance; or we might go all the way to materialism, and say mind is only a function of the material brain. Thus—

But if the organism be a machine, what will soul and mind be?

(a) It is possible, while holding the life of the body to be mechanism, to explain the mind by the hypothesis of *dualism* of substances. Mind and body may be two essentially different and independent substances, the primary attribute of the one being consciousness; and that of the other, the property of filling space. It will follow from this that all the functions of the one are modes of thought; and all those of the other, modes of extension and motion in space. Thus the life of the organism will be a system of mechanical forces as materialism teaches, but the working of the soul will be essentially different, and inde-

It may be possible to explain them by the theory of dualism of substances—

That though the body is a material machine, the soul is a particle of a different substance.

pendent of the organism. But it will follow also that there can be no interaction between them. Hence the question arises, how they come to correspond to each other—sensation in mind to states of body, and movements of body to volitions of mind. The various hypotheses arising out of this difficulty have already been described.

Or there may be no soul at all, and mind may be merely a series of states accompanying the mechanical working of the brain.

(b) But, if we reduce the life of body to mechanism, there will be a tendency to go beyond this, and explain the mind also by the machinery of body and brain, and to say that consciousness itself is a chemical product of the cells of the brain; that these produce feeling just as they produce heat—"secrete thought just as the liver secretes bile"—and that mind is nothing more than the series of conscious states thus produced by the physical processes of the brain, *i.e.*, a function of the brain, and nothing more. The fallacies underlying *materialism* are pointed out in psychology.

There is reason to believe, however, that the mechanical forces of the organism are themselves subservient to a higher power which applies and co-ordinates them;

Nevertheless it is easy to show that the inference which materialism and dualism have drawn as to the mechanical nature of organic life, goes far beyond its premises. Nothing has really been done by physiology to shake the conclusion of philosophy, that mechanism is not the ultimate power, but subordinate and instrumental to a higher power. We have every reason to believe that the world is a system, that the materials and forces of nature are differentiated, applied, and co-ordinated by a power which works in them, and gives plan and purpose to the whole. Therefore those forces which we call mechanical, can only be special applications of higher powers to particular purposes, as the higher powers themselves must be applications of the evolving power of the whole, working out the purpose of the whole.

For the attempt to account for the processes of life wholly by physics

In short, the forces of the world which we call mechanical must be manifestations of a higher organizing power to which they are instrumental; and the mechanical forces of the body must

be elicited and regulated by a higher power which may be called 'vital', or rather 'ideal'. "The more thoroughly we study biological problems, the more we are convinced that even these processes which have already been regarded by some as explicable by chemical and physical laws, are in reality infinitely more complex than they were supposed to be, and at the present day defy all mechanical explanations." And if we "consider more closely the processes which are capable of being explained and stated in physico-chemical terms, we find that there is nothing in them characteristic of life."

and chemistry is not successful ;

If it be true, as has been said, that "matter contains the promise and potency of all kinds of terrestrial life," then matter must be something very different from what it has hitherto been supposed to be—its movements and transformations must have regulating 'idea' or 'purpose' immanent in them all.

Life, therefore, is not explained by merely pointing out the mechanical processes included among the manifestations of life. It is not the mechanism that makes life: life is that higher form of power which makes, applies and co-ordinates the forces that operate mechanically. We can see that the mechanical forces have no self-unifying, self-co-ordinating power in themselves; without the higher co-ordinating power of life they fall asunder, and the materials on which they operate, the C,H,O,N, of the body, are at once dissipated into earth and air. The physical forces of nature by themselves tend towards nothing but a dissipation of motion and an accumulation of matter in its crudest form which mean death; the forces of life tend towards differentiation and co-ordination and more complex activity, and the eliciting of new powers hitherto latent in the world-energy. But we should here notice—

They manifest in themselves an evolving and co-ordinating power, which is life properly so called, containing mind latent in itself.

The objections raised by many physiologists against the possibility of vital

Nevertheless many deny that there is

any such  
higher force  
manifested  
in life,

Partly be-  
cause it  
would appear  
to be incon-  
sistent with  
the unchang-  
ing quantity  
of physical  
force working  
in things ;

Which is  
never in-  
creased nor  
diminished ;

**force**, or any special energy of life as distin-  
guished from chemical and physical forces. These  
are based—

(a) Chiefly on the principle of conservation.

It is assumed that, if there is such a thing as vital power, it must manifest itself as a force on the same level with the chemical and physical forces of the organism ; and therefore continual transference must be going on from the vital form to the physical, and from the physical to the vital. If so, then the quantity of physical force working in the organism will be constantly increasing and diminishing according as the amount transferred to the vital form is diminished or increased. But, it is argued, the quantity of physical energy operating in the body is always exactly proportionate to the amount of material assimilated from the outside, and changed into energy by digestion and oxidation within the body ; and there is no increase nor diminution that cannot be accounted for in this way. In fact, the commonly recognised physical forces—molar, chemical, electric, thermal, actinic—form a closed circle, such that nothing can pass out or enter in. There is, therefore, no place in the organism for a special vital energy. "It is the equivalence of the energy which leaves the body, as mechanical work or heat, to that which enters it in a chemical form in the food, that makes us pause before abandoning all hope of attaining to a chemistry of life"; in other words, we may still hope to explain life as a chemical process.

"It is very probable that the day will come when science will discover the mystery of life, and that it will consequently be possible to create living things."

And partly  
because so  
many ap-

(b) Partly also on the ground (mentioned above) that various substances, such as bile and

sugar, once thought to be products of living organism alone, and therefore of a special vital force working in organism, and not producible in any other way, can now be produced artificially by a combination of known physical and chemical forces, in the laboratory. It follows that the other products of organism, or even living protoplasm itself, may yet be produced artificially; and from time to time we are startled by reports that the great synthesis has already been accomplished.

parently organic processes and products have already been explained mechanically.

The truth is; however, that the precise amount of physical energy latent or operative in the organism can never be determined precisely, nor therefore its increase or decrease. And further, the vital power, whatever it may be, is not a force on the same level with the physical forces; and its nature may not be to increase or decrease the quantity of these, but to regulate their directions as means to ends. The vital energy, therefore, will be the force of end or purpose, selecting and controlling the physical forces as means for a common result; and will not be a force working in opposition to the physical forces, but will be the influence of the whole over its constituent parts. And, as to the second of the above arguments, the evidence is overwhelming that life never appears without the selecting and controlling agency of antecedent life—that *omne vivum ex vivo est*.

But the truth is that nothing of a truly vital nature has been explained mechanically;

And mechanical forces by themselves are agents of disintegration and dissolution, and not of co-ordination and development—of death, not of life.

We therefore set aside the materialist hypothesis, and proceed to consider the spiritualistic hypotheses—

#### § 44.

### II. The Organizing Activity as Soul (or life which has risen into consciousness).—

Thus far we have been dealing with life only. But we commonly think of life in connection with *soul* and therefore with mind as function of soul. We ask again, therefore: How, are we to distinguish between life and soul? We commonly think of

How then is soul to be understood and described?

And how is it related to life?

soul as something which exists and operates for a time within the organism, evolving and regulating the organic processes, and thus far identical with life ; but which at the same time either possesses from the beginning, or acquires by development, an independent self-regulating and self-conscious existence of its own apart from this particular organism ; and finally passes away from it, leaving it to be disintegrated by the forces of nature ; and enters upon some other form of existence without losing its self-conscious identity.

Here we have the different hypotheses as before.

How, then, are we to explain this self-subsistent independence of soul, and the relation between soul and life ?

According to dualism there is no essential connection between soul and life ;

Life belongs to the material organism only ;

Soul is a unit of different substance located temporarily in body, but having nothing in common with it.

1. *Dualism* as already seen, makes an absolute separation between soul and the life of the body. Soul and body are different substances having different qualities. The essence of body is its property of filling space ; the essence of soul is its property of self-consciousness ; and all their manifestations are applications of these primary qualities. Therefore neither will have anything in common with the other. The life of the body, therefore, will be entirely different from the working of the soul ; the molecular integrations and disintegrations and molar movements in which the life of the body consists, can have nothing in common with the thought and feeling which constitute the experiences of the soul.

From this dualism of soul and body it may seem to follow that the life of the body must be explained by mechanism wholly ; that the body is a self-evolving and self-regulating machine ; and that soul is a foreign substance without any essential connection with the body. But from this it

would follow that there can be no causal connection between mind and body ; that their correspondence must be explained by some such hypothesis as occasional cause or pre-established harmony, this conclusion was drawn by the Cartesians of the 17th century. Thus

(1) Some have believed that the soul is a simple unit of substance which, being ultimate, simple, indivisible, has never had a beginning and can never have an end—a self-existent and indestructible entity. This view supposes that every soul has gone through innumerable states of existence in the past, and will go through innumerable states in the future without end—the doctrine of *essential* immortality, and transmigration.

The soul-substance being either self-existent and eternal by its own nature,

(2) Many think that souls must indeed have a beginning, but will never have any end ; they have been created in the past, but the act of creation has made them immortal for the future ; the power which has willed them into existence will never will them out of it again—the doctrine of *derived* immortality.

Or created by God, and immortal for the future though not from the past.

2. The *idealistic* view (which is also monistic and evolutionist) supposes that life and soul are of the same ultimate source and nature, and that soul is a more highly developed form of life. Life is the power which manifests itself in differentiating and co-ordinating the organs of the organism. In the lower forms of life only a small number of parts and organs are differentiated ; in the higher kinds the number of distinct organs and functions becomes very great. We may suppose, then, that at a certain stage of development the differentiation and co-ordination of functions become so complete as to constitute a self-sustaining individual unity. At this point, therefore, life will rise into being soul—a self-sustaining unity of functions which has made itself indepen-

According to the idealistic and evolutionary view, soul is a more highly developed stage of the same power which manifests itself as life, so that there is no dualism of organic work and mental work.



dent of the particular organism in which it has developed itself ; and capable of passing away into other forms of being ; and of continuing to exist so long as it fulfils its function as a correlated factor in the unity of the whole—*conditional* immortality.

According to this view, then, there may be said to be two stages in the self-manifestation of life,—

If so, the power which manifests itself in plant, animal and human organization, will be of the same kind as that which manifests itself in soul and mind ;

(a) In its lowest forms, it manifests itself in life which is general and specific merely—a general power which evolves many different species of organic forms, adapted to all the different circumstances under which life is possible, in water, earth and air, and produces innumerable individual organisms of every species. But thus far life itself has attained no concrete individuality independent of particular organisms. The individual life fails to sustain itself against the disintegrating forces of nature, and ceases at the disintegration of its organism. This, then, will be the case with animal life.

Only at different stages of development.

(b) At a higher stage it rises above this condition and manifests itself in the individualised life of soul, in which it has attained such co-ordination and unity of function as to be a self-subsistent individual, preserving its own identity against the forces of nature, and entering on a new phase of existence after the dissolution of the body. Thus, in the lower forms of life, the particular creature exists only for the sake of the species ; but the individualised life which is soul, has come to be an end in itself, having a function and good of its own, and, working out its own further development and perfection.

This view, then, is an application of the principle of continuity introduced into philosophy by Leibnitz. It seems to be open, indeed, to this objection, that it seems to make human soul and mind to be continuous with animal life and mind, and capable of being evolved out of them (but see the question of the 'origin of reason').

## § 45.

**III. The Organizing Activity as rational mind; animal and human mind.—**

Thus, at some point in its upward development, life begins to be accompanied by consciousness of its own changing states, and to feel them as agreeable or disagreeable, and to distinguish differences of light and darkness, heat and cold, repletion and inanition, and the like. The point at which consciousness begins is uncertain. Some have thought that even plants have some degree of feeling; others, that all animals have; others, that feeling begins only at some intermediate stage in animal development.

At last it attains to such organisation and unity as to become aware of itself;

Now in the development of consciousness we may distinguish two stages:—

(a) We may suppose a consciousness which is a mere *feeling of states*—of heat and cold, light and dark, pleasure and pain—without any understanding of the *meaning* of the feelings (*i.e.*, of the realities they reveal); and therefore without any discrimination either of the subject which has the feelings, or of the object which occasions them. There will here be simple consciousness and nothing more. And we may suppose that the lowest phase of consciousness is of this kind—without any distinction of self and other than self. This we suppose to be the nature of animal mind.

At first merely of its changing states as agreeable or disagreeable, producing animal mind; but

(b) At a higher stage—probably that at which life becomes soul—consciousness begins to be accompanied by an *understanding of what its states reveal*, and thereby of itself as having states and performing activities, and of other things as resisting its activities and occasioning states in it; and thus arrives at an understanding of itself and

At last of its changing relations to other things, and thereby of the distinction between itself and other things

thus rising  
into human  
mind.

its place and function in the system of things. Here then consciousness will have risen into being self-consciousness—mind will have risen above the animal stage and become rational and human soul. Hence we must distinguish between

Thus from  
being con-  
scious merely,  
it becomes  
self-con-  
scious.

### Consciousness of Self and of other things in contrast with Self.

—The differentiation and integration of functions by which life raises itself into being soul has this result : as soul, it becomes aware of its own unity as a self-sustaining, self-developing principle, having an end and good of its own and capable of regulating all its functions as means towards its own highest good. It has become a self-conscious, self-controlling 'real', existing not as a means for the good of other things, but as an end to itself. And the soul's awareness of its own individual reality, of the states good or bad imposed upon it by its relations to other things, of its own highest possible good, and of its own self-directed activities to preserve itself, and to realise its good by developing and perfecting itself—this is its *self-consciousness*, and rationality.

Hence, self-  
consciousness  
and its con-  
tents and  
implications,  
*viz.*,—

At this stage, then consciousness comes to be

(1) Primarily and directly *self-consciousness i.e.*,

Awareness of  
self, carrying  
with it

awareness of self, and of the states and activities of self,—which is *internal* perception ; but

(2) Secondly and indirectly it is *other-con-*

Awareness of  
not-self as its  
correlative.

sciousness also, because its self-consciousness involves discrimination between its own activity on one side, and the passive states forced upon it by activity (resistance) *other* than its own, on the other side,—which is *external* perception.

Hence, corre-  
lativity of  
self, and not  
self, subject,

This is equivalent, then, to saying that, in its being consciousness, it is conscious of its own self or subject as a finite and relative 'real' existing by

action and reaction with other finite 'reals'; and therefore as a relative and conditioned factor in a system of finite, relative, conditioned things.

and object to experience.

Thus self-consciousness begins at the time when, from the mass of vague feeling which makes up the material of consciousness, the self begins to distinguish between itself as the subject experiencing these states, and a not-self as imposing them upon it. Thus in fully developed consciousness we can distinguish these three constituents—

*Self-consciousness and other-consciousness,*

(a) States of consciousness which we feel not to be of our own making, but imposed upon us by something other than ourselves, and which we may speak of as the materials of consciousness in and through which we know things; and

(b) Realities revealed to us in and through these states of consciousness; for in being conscious of these states we are conscious

(1) of our own self as experiencing the states, and

Or internal and external perception,

(2) of something other than our self as the ground or occasion of them.

Thus when I perceive a tree, I experience sensations of colour from the trunk, leaves and flowers, of sound from the motion of its branches, of smell from its flowers, of coolness perhaps from its shade, and ideal feelings of movements and touches which I should experience if I approached it. Along with these conscious states, I have a consciousness of myself as the subject experiencing these states, and of something other than myself as imposing them upon me, *viz.*, the tree as an external thing.

In this way consciousness rises into being elementary *self-consciousness*; and becoming conscious of self, it is prompted to think of the past and future of self, and thereby rises into *thought*, which consists in distinguishing between the present states of the self and past states revived in memory, and making these a means of anticipating future states. In this way the self arrives at a conception of its own life as a whole, and of its own good as a whole, and becomes able to regulate its actions in such a way as to realise its highest good. This understanding of the good

Rising into thought of past and future,

And of its own good.

of self and power of consciously realising the good, make self-consciousness to be complete.

### § 46.

But how does consciousness get a beginning? Here we must refer to the same theories as before, of substance and life—

That there are two substances, and that the essence of one of them is to be conscious of the other ;

Or that there is but one substance, and that consciousness and extension are correlative manifestations of that one :

In which case we may hold either that consciousness and body are the internal and

**The origin of consciousness.**—As the fundamental question of biological science is the origin of life, so the fundamental question of mental science is the origin of consciousness. And as it is hard to explain the origin of life out of the lifeless (abiogenesis), it is equally difficult to explain consciousness as a product of the unconscious. Various hypotheses may be considered, which involve repetition of the different theories of substance already indicated.

(a) We may think that, as the mental attribute of being conscious is so essentially different in kind from the attributes which we call physical, it must be the attribute of an absolutely different substance, and thus arrive at the hypothesis of *dualism* of substances—that spirit and matter, the conscious and the unconscious, have existed from the beginning as two absolutely distinct substances (whether as eternally self-existent realities, which is *absolute* dualism, or as created by God, which may be called *derivative* dualism).

(b) Or we may think that mind and body are correlative to each other as subject and object, what thinks and what is thought, what produces and what is produced, or a positive and negative poles of the some concrete reality ; so that the two must co-exist eternally as correlative factors of one substance. And in so doing,

(i) We may suppose that this antithesis is universal, and to be found even in the ultimate units of reality, and therefore even in what appears phenomenally under the form of matter. We may suppose that, for every unit or mode of matter in

the universe, there is a corresponding unit or mode of consciousness; and for every unit of consciousness, a unit or mode of matter. We shall then have to suppose that organization consists in bringing the original units of matter into correlation with one another in such a way, that the many units of consciousness accompanying them may flow together (as drops of water attract one another) into one complex consciousness—one feeling of many feelings, or idea of many ideas—which will be the aggregate mind of the whole organism. In man it will be soul, in the world it will be God. This is the hypothesis of universal *parallelism*, associated with the name of Spinoza (also called *panpsychism*, soul in all things).

external aspects of the one substance.

- (ii) Or we may, assume the pluralistic doctrine of spiritual 'reals', and suppose that every ultimate 'real' is potentially a soul: and that organization consists in bringing the original 'reals' or 'monads' into relation with one another in such a way that
  - the influences of all the monads of the organism will converge in a 'clear and distinct' way, upon one central ruling monad (the soul); and will determine the states of that monad in such an orderly manner, that in being directly conscious, of its own states, that monad will be indirectly conscious, at the same time, of its whole organism; and, through that, of the surrounding world as reflected in its organism. The world of external thing will be reflected or 'mirrored' in the monad's own states, and thereby enter into its consciousness of itself, so that in being conscious of itself it will be conscious of the world also, as mirrored in itself. This is the pluralistic hypothesis of Leibnitz—that the ultimate elements of the world are individual units,

Or that the one substance consists of many units, and every unit is capable of becoming a self-conscious soul;

each capable, under favourable relations, of developing into a self-conscious soul.

Or that the one absolute real evolves from within itself many relative reals:

Organises these into many finite organisms and souls ;

And thereby reproduces its own universal consciousness in many finite consciousnesses ;

(iii) Or, (without falling back on such pluralism with all its difficulties), we may adopt the idealist hypothesis—that, to be concrete reality, being must be being *for* self ; that to be *for* self means to be *aware* of self ; and that to be aware of self is to be conscious of self. From this it will follow that the straining of abstract being towards concrete reality, will be at the same time a straining towards consciousness and ultimately self-consciousness. From this again it will follow that the striving towards consciousness will underlie all the forces of nature. Hence it will follow also that, wherever the forces of nature attain to such self-sustaining unity in multiplicity as to constitute concrete reality, they, in so doing, realise in themselves that *being for self*, or self-awareness and self-control, which constitutes self-conscious soul or spirit. In other words, consciousness is the becoming explicit of what was already immanent and implicit (as end) in the forces of nature and life themselves, or rather in the power which works universally in them. And we may thus conclude that the consciousness of finite mind is the reproduction in finite form of the universal consciousness which is immanent in the evolution of nature.

Thus understood, the forces of the world are seen to be instrumental to mind. The world proves to be a system of forces co-operating together for the attainment of ends. The ends striven after must include the attainment of concrete self-subsistent reality. But reality to be such, must by the nature of the case, be *for* itself ; in other words, it is aware of itself as *self-conscious* soul or spirit. The world process, therefore, will include within it the evolution of a system of 'reals' of lower and higher degrees of reality,

possessing lower and higher degrees of self-consciousness and self-control—in other words, of souls as finite and conditioned realities. These will be contained within the consciousness of the absolute. The absolute alone will be wholly *by* and *for* itself, and have perfect reality, and therefore perfect self-awareness and self-control. Finite souls will have relative reality and independence.

It may be said, therefore, that the forces of the world are the energy by which mental power realises itself as concrete spirit, *i.e.*, as reality which is aware of itself, or self-conscious. Thus the world is found to be in essence mental; spirit is seen to be “the truth of nature”. But “what is first by nature is last in realisation;” the abstract power precedes (logically) the concrete reality.

This is the *idealist* and *evolutionist* view. It was the conclusion arrived at by the critical or transcendental philosophy which took its rise from the inquiry by Kant and his successors into the antecedent (transcendent) conditions of the possibility of knowledge (epistemology), and was further developed by his successors.

Materialism gives no explanation of the origin of consciousness, except by adducing such fallacious analogies as the production of light and heat by material processes.

And thereby realises its own infinity as consciousness of all consciousnesses, will of all wills, absolute spirit.

#### § 47.

#### *The Relation between Mental and Bodily Processes : the Physical and Psychological Series.*

**The correspondence between mental and physical.**—Life seems to manifest itself to us under two different aspects : what we call our mental life, which consists of a series of conscious states and processes flowing on successively in time ; and what we call our bodily life, which consists of processes going on continually in nerves, heart and arteries, and organs of assimilation, secretion and motion—partly synchronous with one another in space, and partly successive in time. The former series we know directly in self-consciousness

The series of conscious states and activities and the series of bodily states ;



Knowledge implies that they correspond to some extent.

as states of our own self. The latter we know in or through impressions imposed upon our self from outside ; for we should never know even our own material body, if we did not see it with our eyes and feel it with our hands, and thereby know it as something which impresses itself on our purely menal self from the outside by resisting it. But we find that states and changes of the one series correspond to states and changes of the other. We have to consider, therefore, the question of the extent and cause of this correspondence between physical and psychical, mind and body—between the processes of feeling, thinking and willing on the one side, and those of brain and nerves, of circulation, movement and the rest on the other side. And first

But how far does their correspondence extend ?

1. **As to the extent and meaning of the correspondence.**—We find that every concrete mental state and process is accompanied by a state and process of the organism ; in other words, that the mental series of states and processes (sensations, ideas, volitions) has a physiological series corresponding and running parallel to it, (processes of brain-cells and nerves), so that every change of the former corresponds to a change of the latter. Can we then invert the proposition, and say that every physiological process has a mental one corresponding to it ? This would mean universal parallelism of physical and mental (panpsychism). Empirical psychology, though it can prove approximately the former proposition, cannot prove the latter without limitation. It can say only that *some* physiological processes have mental ones corresponding to them. Hence empirical physiology has to stop short of universal parallelism, and remain satisfied with the working hypothesis that all mental states and processes have physiological ones corresponding and running parallel to them.

It is commonly assumed that all mental processes are accompanied by physical ones,

But not that all physical ones are accompanied by mental.

But with regard even to this restricted parallelism some important questions present themselves. In the first place—

(a) *What corresponds to what?* Or what is it in the one series that is parallel to something in the other, and what is that something to which it is parallel? Thus, we know that the physical series consists of mechanical shocks and movements, integrations and disintegrations, of the material molecules composing muscles, nerve-fibres and brain-cells; and there is reason to believe that the physical processes, to which the mental ones correspond most directly, are those of the cells of the cerebrum. What is it, then, in the mental series, that is really parallel to these molecular processes of brain?

But what is it in the physical series that corresponds to the mental?

And what is it in the mental that corresponds to the physical?

There can be no doubt that the elements of feeling—sensation and emotion, pleasure and pain—correspond in some way to molecular agitation of the organism—colour, to agitation of the retinal rods and cones of the optic nerve, and more directly, of the visual centres of the cerebrum; sound, to an agitation of the drum-membrane, labyrinth, semi-circular canals, auditory centres, and so on. This being true of sensation, ideas also, in so far as they involve concrete images of things constructed out of the sensations given by the things (“mental imagery”), will involve the same molecular processes of organism. Emotions, such as fear, anger, hope, are known to involve organic processes of the viscera, as well as of nerves and brain.

Sensations and feelings undoubtedly correspond to physical pro-

But difficulty arises when we consider the more purely intellectual activities such as discrimination, comparison, perception and recognition, judgment and inference—in other words, the cognition of relations which is pure thought. When one is

But it is impossible to conceive any direct correspondence between purely

intellectual  
activities and  
physical pro-  
cesses.

These imply  
a power  
which is  
above the  
physical pro-  
cesses.

engaged in solving a mathematical problem, composing a play, or contriving a new machine, there is, no doubt, a succession of concrete images and feelings passing through the mind; and, corresponding to these, there is a flow of molecular agitation in brain and body; but to what in the organism does the thought and cognition proper (*i. e.*, the understanding of relations and connections) correspond? Empirical psychology, in spite of its principle of concomitance, has given no satisfactory answer to this question. These processes would seem to involve something *hyper-physical* or *meta-physical* so that the parallelism can hardly extend to them. When we think that "the sun will rise to-morrow morning," we may have before our imagination a concrete picture of the sky, the horizon and the sun rising above it, and this picture will correspond to a process in the visual centres of our brain; but the essential element in our thought, *viz.*, the inference and understanding of the proposition, cannot be said to correspond to anything physical.

(b) *In what does the correspondence consist?*

And in what  
respects do  
mental and  
physical pro-  
cesses corre-  
spond?

Is the corres-  
pondence one  
in kind and  
likeness?

Which is ex-  
treme  
realism.

Difficulty of  
supposing  
this.

Supposing, then, that there is a correspondence between states of sensation, imagination and emotion on one side, and molecular agitation on the other, we ask: in what does the correspondence between them really consist? Correspondence or parallelism must be correspondence in properties of some kind. In what properties, then, can these two series correspond to each other? We can imagine different kinds of correspondence. We can suppose (1) a correspondence consisting in likeness of kind or of essential qualities, as one flower resembles another flower, and a picture, its original as is assumed by naïve realism. Or we can suppose

(2) a correspondence in number, order and relation of parts merely, without any resemblance of kind, as, *e.g.*, the sounds of articulate speech, or the characters of the printed page, correspond to the ideas which they express, though there is no resemblance of kind between them.

Or is it merely one of relation?

Now the correspondence which holds between mental and physical evidently cannot be resemblance of kind in the former sense; the sensation of redness can have no resemblance of kind to the arrangement of molecules in the flower which is its external occasion; nor even to the re-arrangements of molecules going on in the retina and brain, which is its immediate antecedent. When we have the idea of a ship in our consciousness, we cannot suppose that the molecules of the centre of visual imagination have built themselves up into a little *model* of a ship; or that, when we think of cows, trees or men, we have little cows, trees or men moving about in our brains. The correspondence, therefore, must be of the second kind—a correspondence of relation merely. Our knowledge must consist merely in this, that “the order and connection of ideas is the same as the order and connection of things.”

Difficulty of naive realism.

But this conclusion has an important bearing on our conception of the material world—*i. e.*, of the series of objective things and events revealed to us through the medium of the mental series. It seems to follow that our knowledge of the non-mental world can be only phenomenal and symbolical. Our ideas of things correspond in some way to the things themselves, but do not resemble them in the ordinary sense. The qualities of matter will be known, therefore, not as they really are in themselves, but only in or through the mental states which they occasion in us; and these will correspond to the qualities of matter only in their relations, not in kind. The correspondence will not be like that which exists between a picture and its original, but

In other words, what is the real meaning of knowledge, and of truth?

rather, perhaps, like that between the articulate sounds which we utter and the thought which they express.

This only raises again the question of the different theories of knowledge and of truth ; as before.

The common belief, indeed, is that though our ideas do not resemble things in their secondary qualities, yet they do so in their primary ones ; so that, though there can be no colour, taste, smell or temperature in the objective world, nevertheless extension and impenetrability are there, just as we represent them in idea. Closer analysis, however, shows that our ideas even of these are built up out of sensations within the sphere of consciousness and cannot have more resemblance to extra-mental reality than those of secondary qualities have. This question is the one underlying the different theories of knowledge and truth—realism, phenomenalism, scepticism and idealism.

But granted that mental and physical processes correspond, what makes them to correspond ?

**2. And next as to the cause of the correspondence.**—How is it that changes of mind and changes of body come to correspond to each other ? Here we come upon the same hypotheses as those stated before regarding the relations of soul and body, mind and matter. Thus

This brings us back to the same theories of mind and world as before.

(1) We may suppose that one of the series *produces* the other—that matter produces mind and its states, or that mind produces body and its changes. This brings us back to the hypotheses of materialism and idealism.

We may say the material series comes first and produces the mental as a by-product of itself ;

(a) For *materialism* assumes that the series of physical states and processes produces the mental series—that the dance of atoms in the brain-centres produces, under certain circumstances, sensations of colour, taste, smell, etc., and makes these in some way combine into ideas, and go through processes of judgment and reasoning. It is the brain that feels, thinks and wills. Against this view, however, there is the fact that movements of atoms can produce nothing but other movements of atoms, in conformity with the law of transference and conservation.

(b) *Idealism*, on the contrary, assumes that it is ultimately mental power that produces the physical series. The meaning of this is that the power which evolves and co-ordinates the organism is the same power which, by means of the organism, becomes aware directly of itself, and indirectly of the surrounding world, *viz.*, by raising itself into mind. In other words, the organism is the product of a power which, by means of the organism, raises itself, from being abstract power merely, into being concrete, self-conscious soul ; and makes itself to be a rational self-controlling factor in the system of things. But a power which thus raises itself into being mind, is itself a mental power. Therefore mind is not a product of body, but body is the product of a mental power in the process of making itself to be concrete mind.

Or we may say that mental power is the more ultimate, and produces the physical as means to end.

(2) Or we may suppose the two series are processes of two essentially different and independent substances, each of which has existence of its own apart from the other (being only temporarily united together into the two-fold system of mind and body); and that changes in one substance cause changes in the other substance. This brings us back to *dualism*. Thus we may suppose that the soul is a unit or monad of spiritual substance whose primary quality is to be conscious, and that the mental series are successive modes of its consciousness ; but we may suppose that the body is composed of atoms of material substance whose primary quality is extension and impenetrability in space, and that the physical series, therefore, consists of movements and re-arrangements of atoms in space. Then we may suppose that changes going on in the material substance of body cause changes in the mental substance of soul, and that changes in soul cause changes in body. This is the common dualistic view. One of its difficulties is to explain how soul and body, on this view of their nature, can act and react on each other ; only those things can act directly on each other which have been evolved as correlative factors out of one original substance,

(Or we may say that there are two essentially different substances, and that the activities of the one cause the activities of the other.

But then there is the difficulty of explaining how the one can cause the other.

and have therefore one common nature. Another difficulty is this: we should have to suppose two souls—a spiritual soul as subject of the mental series, and a physical soul as the power which evolves the body, and keeps up the physical processes or series of bodily states.

Or we may say that the mental and physical are not really two distinct series, but the same series viewed from different sides;

From inside and from outside;

Which is the 'double-aspect' theory.

(3) Or we may fall back on the hypothesis of *universal parallelism*. Empirical psychology can go no farther than the partial parallelism explained above—that *all* mental processes are accompanied by physical ones, and *some* physical ones by mental ones. But we may go farther than this on metaphysical grounds. We may say that matter does not produce mind (as materialism assumes), nor mind, matter (idealism). And we may say that the mental and physical series are not products of two independent substances (dualism), but correlative manifestations of one and the same substance. We may suppose that outwardly this substance manifests itself in an infinity of changing modes having the form of extension in space; and that all these outward modes of extension are accompanied inwardly by corresponding modes of consciousness; so that, for every mode of extension in the universe viewed externally, there is a corresponding mode of consciousness felt internally. What we call the physical world is the system of outward forms and changes which appear as things in space; the mental world is the system of conscious states corresponding inwardly to these outward modes of extension. Hence mind and organism are the same reality regarded from opposite points of view. It appears to itself inwardly as an organized system of feelings and ideas, *i. e.*, as mind. Outwardly, it appears to itself and to other minds, as an organized system of molecules and organs occupying space, *i. e.*, as body. But it is the same reality that manifests itself as mind and as body. Hence mind does not act on matter, nor matter on mind; real causality lies in the self-modifications of the one substance, which appear inwardly as mind, and outwardly as physical nature. And this correlativity of aspects makes "the order and connection of ideas to be the same as the order and connection of things."

This view has been expressed crudely in the formula that "for every unit of 'matter-stuff' in the universe, there is a corresponding unit of 'mind-stuff'." But it is difficult to maintain this 'double-aspect' theory consistently. Its adherents have a tendency to make one or other of these aspects the fundamental one, and thereby fall back into either materialism or idealism.

But those who try to hold this view must fall back into materialism or idealism.



## XIV

### SOUL AND THE SELF.

#### § 48.

#### *Self and Self-Consciousness: Personality.*

When soul becomes conscious of its own states and activities, and of exercising and co-ordinating its activities for an end or purpose, it becomes a self or ego ;

**Soul and Self.**—Consistently, then, with the principle of continuity, we may conceive soul as that power which evolves the organism as the direct instrument of its conscious activity, and the means by which it knows and reacts on the external world, and thereby communicates with other minds ; and which in so doing becomes aware of itself as a factor of the world-system, acting and reacting with other factors, and as having a function of its own to perform, and a good of its own to be attained by its own activity, as a factor of the system. With the consciousness and understanding of this, soul has risen into being a self and person.

At this stage, therefore, life in the form of soul has come to exist,

And as such, it has the power of preserving and developing itself ;

(1) *By itself, i. e.*, it has *within* itself the powers which are needed for preserving and developing itself ; and it has *within* itself the force of end or purpose, which makes all these powers co-operate together as applications of the one self-preserving and self-developing energy of purpose. And it has come to be, to some extent,

And is conscious of being an end to itself having a good of its own, and not merely a passive instrument for the good of others.

(2) *For itself, i. e.*, it has attained such unity of state, activity and purpose, that it is now *conscious of itself*, as a centre of energy existing for 'the fulfilment of a function, and thereby of a good, and existing not merely as a means towards the good of other things, but as an *end to itself*, having a good of its own ; and *of its own power* to apply and regulate its energy in activities for the fulfilment of its function and attainment of its good.

Now, as the agent which consciously puts forth such self-developing and self-perfecting activity, it is a *self* or *ego*, a something that feels, thinks and wills ; that is,

And in being a self,

(i) *Feels* its own states as agreeable or disagreeable ;

It is conscious of its own states ;

(ii) *Thinks*, or interprets its changing states as revealing its own nature, position, and relation as a factor of the world-system—as a real among reals—having a function and good of its own to be realised by its own activity ; and

Thinks what is for its own good,

(iii) *Wills* such activity as it thinks to be required for the performance of its functions and attainment of its good.

And regulates its activities for its good.

And the unity and identity (*i. e.* reality) of the self consists in this : the energy which constitutes the essence of the self, is the energy of self-preservation and development—of self-realisation—and is therefore fundamentally one effort, though it is drawn out into many applications and forms, according to circumstances, (that is, into many actions succeeding one another in time). The successive actions rising out of one another successively are all connected together as past, present and future, by their common subject which, by its duration through successive states and activities, makes time. This enduring something is the self, which is conscious of its own identity through them all simply because it is conscious of them all as modes or applications of the energy of self-preservation and self-development which is its own essence. Thus

And in so doing it manifests its own reality and identity, because all its activities are but applications of one activity, *viz.*, that of self-realisation,

So that the same self is present in all its activities.

(1) In *simple consciousness* we might *feel* passing states with their differences of quality and quantity—sensations, organic states, and emotions, agreeable and disagreeable—but feelings might be

But we must distinguish between simple consciousness of states as in animals,

unaccompanied by any understanding of their relations and meanings. Such feeling would suppose indeed, a high degree of that unity and correlation of activities which constitutes life; but would fall short of conscious self-control. It would be consciousness, but not *self*-consciousness. It would be merely *animal* mind. But

And the above self-consciousness, which foresees future good and co-ordinates activities for its realisation,

Which supposes rational soul and self.

(2) As *rational* minds we come to understand these states as *meaning* something beyond the states themselves, and these activities as subject to *our* control, and become aware of our power to apply them as means for our own preservation and development, and the realisation of *our* end and function in the world. And in so doing, therefore, we become conscious of our permanent self, and distinguish it from our changing states and from the other things (the external world) implied in our states; and feel our power to react upon other things and make them subservient to our purposes. Thus we come to understand ourselves as not merely passive products of nature, but as *ends to ourselves* (relatively speaking)—applying the forces of nature as means for carrying out our own purposes and realising the highest possibilities of our own nature. Thus, at this stage, mind rises above nature, and makes nature subservient to itself. It is not merely conscious, but *self*-conscious—a person conscious of his own personality.

The world used in several shades of meaning.

(We commonly use the word 'mind' in either of two senses: (i) as an abstract term for the self's power of being conscious of its own states and activities; or (ii) as a collective term for its conscious states and activities themselves, of feeling, thinking and willing, *i. e.*, for what is sometimes called the *empirical* self. (iii) It is sometimes used however for the self, or thinking principle itself, as when the question is asked: does the mind always think?) The philosophical importance

of this principle of self-consciousness is that it gives—

**Self as real and type of reality.**—The philosophical importance of self-consciousness consists in this, that it supplies the fundamental idea of reality or substance, and, involved in that, the ideas of activity and causality. Reality in the highest sense is that which is *by* and *for* itself, *i.e.*, aware of itself as having an end and good of its own to be realised, and as putting forth energy for its own preservation and self-realisation, and preserving its own identity through successive states and activities (or, more correctly, modes of activity). Such reality is presented to us directly in our own self-consciousness, and nowhere else. Only in self have we any direct cognition of a plurality and series of states and activities as manifesting the self-realising power of a single reality—a consciousness of many in one. And as self is the only reality of which we are directly aware, it is therefore to us the standard and type of all reality.

The assumption which seems often to be tacitly made, that we perceive somehow the reality of external things, and having thus got the idea of reality from other things, *infer* our own reality—that we know the reality of other things by intuition, and that of ourselves by inference—is obviously fallacious. What we receive directly from external things, is a plurality of sensations at different times and places. We should never think of putting these together as attributes of permanent substances, (external things) if we had not already obtained the idea of substance from some other source. The only possible source of such a conception of unity in plurality, is the unity of past

The philosophical importance of self-consciousness.

A real is what preserves itself by many activities, and thereby remains the same through them all.

Where then do we get a perception of such self-preserving identity through a plurality of states in time?

Only in our own consciousness of self.

The view that we perceive reality first in other things, and then infer it in ourselves, is absurd.

and present states and activities in one subject, which we find in self-consciousness. Hence the principle of all (idealistic) philosophy is this: "We must learn to understand nature from ourselves, and not our selves, from nature; what is known immediately must be the ground of all that is mediate."

Therefore self is a point in which empirical and ontological knowledge coincide.

Self is known empirically, and at the same time as ontological reality.

Thus self is the point in which reality and manifestation, being and knowing (and therefore the empirical and metaphysical methods of knowing) meet and coincide. We know the existence of self *empirically*, because we are conscious of it, and consciousness is the essence of experience. We know it at the same time as an *ontological* fact, because we are conscious of self as *really* existent. We are here conscious at once of the manifestation and of what manifests itself. It is, therefore, the first premise from which all metaphysical reasoning takes its start. All other reality must be known indirectly through the one reality which is known *intuitively*.

### § 49.

But the word 'self' has been used in different senses.

**Different uses of the word 'self'—** Nevertheless the word 'self' has been used in several different senses. Its proper use is for

Properly for the permanent subject of thinking, feeling and willing,

1. Self as the *Ego* or *essential* reality underlying and connecting together all the successive states of one's mental life as described above, *viz.*, the reality which feels its states, thinks its circumstances and relations, and wills its activities for its own self-realisation; and remains, through all its states and activities, the one subject which realises itself in and through them all, and therefore the same identical reality.

The term *noumenal self* is sometimes used with the above meaning. The name, however, is not strictly correct. *Noumenon* (pass. pct) means literally what is 'thought' by the '*nous*' or power of pure reason, as opposed to what is 'phenomenon,' or manifested directly in consciousness. Hence the correct use of the word is for what does not enter into experience but has to be supplied and filled in by exercise of reason. Thus the idea of God may fairly be said to be '*noumenal*.' But the reality of self cannot be a mere inference of reason; we cannot *infer* our own existence, because we cannot infer without being already conscious of ourselves as inferring. Self, therefore, is not noumenon merely, but a fact of immediate experience; a reality not *inferred from*, but immediately present and *given in*, its phenomenon. In self the substance and the manifestation are given together as one concrete reality.

Which is also sometimes called the noumenal self ;

But this would imply that we are not directly aware of our own self,

Thus we might, without contradiction, say that matter is only something suggested by our sensations, and filled in by reason to explain our sensations; but if we say that from our sensations we infer the existence of our own self as their subject, we fall into absurdity, because we cannot infer without being already conscious of self as that which infers.

Which is a paralagism.

The above is the only strictly accurate use of the word, but it is often used in other senses. Thus many writers speak of

But there are other uses of the word 'self'.

2. The Self as *empirical*, or as equivalent to *mind* in the empirical sense. By this is meant the series of states of consciousness—the mass of sensations, feelings and desires—in so far as they are retained, associated together, and thereby made capable of being reproduced in memory as a permanent aggregate of associated ideas. This aggregate of conscious experiences can be considered by itself (it is said) in abstraction from the subject which experiences them—the feelings which make up the conscious life, apart from that

For the series or aggregate of states and processes of consciousness, considered apart from the subject which feels them ;

The sum of  
mental expe-  
riences apart  
from what  
experiences  
them,

which lives in them—and this aggregate of conscious states may be called the *empirical self*. For what is empirical or experiential is what can be observed and remembered for some time, and held up before the physical or mental eye, and experimented on. This is the case, to some extent, with sensations, feelings and volitions. The same sensations can be produced any number of times, and retained before the physical sense by applying the same stimuli, can be reproduced and retained before the mental eye in the form of images, and thus studied empirically. It is the same more or less with feelings and volitions.

Making self  
to be mind  
and mind  
to be the  
aggregate of  
conscious  
processes :

The essential mental principle on the contrary, it is said, though aware of itself in all these states as the subject which has them, cannot separate itself from itself, and hold itself up to be observed by itself. It is always the observing subject ; and though aware of itself in all observation (and thus far subject and object at the same time), it cannot be objective to itself in the same sense in which its states and products are objective. Therefore the states and products which constitute the material of its consciousness may be considered by themselves as the *empirical* constituents of self, and made to be the subject of *empirical* psychology, (apart from the subject which has them), and the essential self may be left to metaphysic. Hence psychology may be studied thus far, it is said, without any reference to any self other than the sum of conscious states which constitutes the empirical life of mind. And the word 'mind' itself may be used to denote the series of possible states ; and the term 'science of mind,' to mean the inquiry into the composition, laws and conditions of conscious states and processes, as something apart from the essential self.

Whence the  
term 'science  
of mind'.

Thus many recent psychologists believe that they can make a scientific study of the conscious states and processes without taking into account at all the subject which has or performs them. But this is very questionable. The experiences have no meaning except in relation to one another. But they can have no relation to one another except through the subject which experiences them. Hence we may expect that such psychology will be full of paralogsms. Indeed it is doubtful if psychology *can* be made *purely* empirical, *i.e.*, studied without any reference to a self in the metaphysical sense.

But experiences have really no meaning apart from what experiences them, and gives them their connection and co-ordination.

Professor William James has given still other meanings to the word 'self', and speaks of

3. The self as the thought and feeling which is common to all members of a community or nation, and makes them all to be 'unanimous' or of 'one mind'—the *Social* or national *self*: for other persons may be so closely connected with our own life, and bound up with our own interest and happiness, that we feel for them as if they were a part of ourselves. Hence our fellow feelings, or feelings of sympathy for others, are, in a sense, feelings of self; and all included within the range of our sympathy may be said to be included within our self. Hence all persons included within the sphere of these fellow-feelings may be said to constitute our *social*, as distinguished from our *individual* self.

The self may be said to include within it all those sentient beings whose feelings it feels as if they were its own,

For the pure self or ego with its feelings, thoughts and volitions constitutes an 'individual,' *i.e.*, a reality which cannot be divided, because no other persons can *directly* feel our feelings, or think our thoughts as we ourselves feel and think them. Nevertheless we have feelings and thoughts of the same kind with our fellow beings, and feel glad

Making self to be collective;



when they are glad, and pained when they are pained. In this sense, then, those with whom we have feelings and interests in common may be spoken of as our social self. But we may go still farther, and speak of

And even those material things, injury to which it feels as injury to itself ;

4. The self as the power by which we work in and control our material body, which may be called the *material self*. For the mind makes itself to be what it is and fulfils its function in the world through the medium of the organism. Therefore we cannot avoid thinking of our body as part of our self. And not only our own bodies, but also many inanimate things are so closely connected with ourselves and our welfare that we cannot avoid feeling even for them as if they were part of ourselves. Thus we feel any injury even to the clothing we wear, or to the property we own, as if it were a personal hurt. The blind or lame man feels his walking stick, or wooden limb, as if it were a part of himself. Such things, therefore, may be spoken of as our material self.

But these are only metaphorical uses of the word.

But such applications of the word self are only metaphorical, and of little real use. The following interpretation of the empirical self is of more importance, and has been the subject of much controversy.

### § 50.

It is possible however to deny that there is any essential mental principle in the first of above senses.

**The sceptical theory of Mind and self:** that mind is nothing but the series of sensations, and the self nothing but the aggregate of those sensations which have been associated together and thereby retained, and can be reproduced at any time in memory ; and that the belief in a permanent reality underlying them is an illusion.

We have thus far been taking it for granted that, underlying all the phenomena of mind, there is a mental 'real' or thinking principle, which preserves and develops its own existence; and in order to do so, feels, thinks, and wills, and makes its thoughts and volitions co-operate for its own greater perfection. If this is the case, this unitary self will be that which makes the states and processes, and gives them their co-ordination and purpose; and this self will be (logically) antecedent to its states. And the above separation of the empirical from the metaphysical aspects of self for the purposes of empirical science is not inconsistent with the permanent reality of an underlying subject in this sense.

And to say that mind is nothing more than the series of feelings and ideas themselves,

But some go so far as to say that there is no such permanent reality underlying successive states of consciousness, and that the self (if we need speak of such a thing) is merely the series or aggregate of the states of consciousness; that every idea and feeling has separate existence of its own and thinks itself; and that different ideas and feelings come together of themselves (or are drawn together by force of association), and organise themselves into a connected system of ideas and ideal feelings which can be revived at any time in memory as conscious states. This system of associated states of consciousness, of ideas and feelings, is the real self. It is not necessary to think of any thing that has, or thinks the states; they are conscious of themselves both singly and collectively—"a series of feelings which knows itself as past and future."

And that self may be conceived as the series of units of consciousness, capable of being preserved as ideas,

And associated into aggregates and compounds.

Thus while many psychologists are of the opinion that the 'empirical' self in the above sense can be abstracted from the essential for the purposes

Hence the definitions of Hume and Mill;

That these feelings and ideas do not require any thing else to be conscious of them.

But may be conscious of themselves,

And capable of coming together and forming series and aggregates without any other self to support and co-ordinate them ;

Thus every conscious state may be conceived as itself a thing, or unit of reality.

of study, and made the sole object of mental *science*, some following Hume go farther than this, and say that the 'empirical' self (as defined above) is really the whole self—that the self is the series of conscious states, the succession of experiences which make up the conscious life, and nothing more. It is not anything that *has* the states ; it *is* the states themselves. We say indeed, 'I feel,' 'I think,' 'I will,' but the correct form of expression will be simply, 'there is a feeling,' 'a thought,' 'a volition'; or 'there is a series of feelings, thoughts, volitions.'

Hence the self or mind will be the sum of these states—'the series of feelings and ideas which make up the life of consciousness'; or even the 'the aggregate of feelings and ideas which fill up the consciousness of the present moment'. There is no use of speaking of a feeling as a state or function of some other thing (of a self or soul); it is itself a thing, and capable of standing by itself apart from everything else ; and the mind is nothing but the sum-total of such things. The pure essential self, considered as something that *has* the feelings and remains the same through them all, is not a fact of positive experience, but a fiction of metaphysic, and must be rejected by positive science.

This 'positivist' theory has been expressed in several different ways, as that

(a) Mind is at first merely the *series* of successive states of consciousness. From being a series merely, mind rises into being a self, when the same states come to be associated together and preserved in the form of ideas and ideal feelings, and thus made capable of being reproduced at any time as an aggregate of conscious states in memory. The self is this aggregate of associated sensations and feelings which have been experienced successively, but have become so associated together in such a way as to be capable of

being revived together in memory. Thus my self is composed of one aggregate, another man's self, of a different aggregate, and so on. "A substance is defined as something that may exist by itself." Now, it is argued, "our perceptions (states of consciousness) are different from each other, and from everything else in the universe; they are also distinct and separable, and may be considered as separately existent; and may exist separately and have no need of anything else to support their existence. They are therefore substances." Mind is but the series of feelings and ideas, like a row of beads without the need of any connecting thread. What atoms are in the theory of the physical world, feelings and ideas are in that of mind; as the world is an aggregate of atoms connected together by gravitation, so self is an aggregate of feelings and ideas (preserved sensations) connected together by the forces of association. "No man is anything more than a collection of different perceptions, which succeed each other with inconceivable rapidity, and are in perpetual flux and movement. There is no simplicity in the mind at any one time, nor identity at different times" (Hume).

And mind may be conceived as the series of units of consciousness,

Associated into aggregates and compounds.

This is the 'psychological atomism' of Hume. Mill has repeated the same view, but has also pointed out its difficulties. We may indeed conceive mind "as a series of feelings," but this series must have "a back-ground of possibilities of feeling." We may conceive it as "a thread of consciousness consisting not only of present sensations, but likewise, in part, of memories and expectations." And both sensations and ideas may include "a *belief* in something more than their own present existence." Thus a sensation may include a belief in something other than itself, *viz.*, as its external ground; and not only so but must include an idea and belief in former or future sensations of which it is a reproduction or anticipation. In short, we must conceive mind as "a series of feelings which is aware of itself as past or future." He acknowledges the paradoxical character of this conception, and admits that we are here "face to face with a final *inexplicability*."

Hence the definitions of Hume and Mill.

Admitted however by Mill to be paradoxical.

In fact, to say that the aggregate or series, of

But such definitions of mind contain their own refutation :

They all assume an essential co-ordinating power.

Or mind may be conceived as not a series of states, but a continuous stream of consciousness,

But consciousness, on the contrary, really implies clear differentiation and contrast.

Or it may be conceived as a wave,

conscious states is conscious of itself as an aggregate or series, is equivalent to saying that it is conscious of all the particular states included within the series, and therefore of the relations of co-existence and succession between them in time. But this, again, is really equivalent to saying that the different states are so many different modifications of one fundamental power of consciousness, which is the function of one thinking principle which thinks in all the different states (the essential self, above), and is not in time in the same sense as the changing states themselves.

(b) The Mind is 'a *stream* of consciousness,' and the self at any moment is but a cross-section of the stream at that moment. This implies that consciousness instead of being a series of distinct states, is a *continuum*, and flows on continuously without interruption—changing in quantity and intensity, it must be admitted, but without breaking up into units as implied in the theory of psychological atomism—flowing on in an unbroken current like a river.

This view, however, that consciousness is a *stream* (James), or a *continuum* (Ward), is quite contrary to our real mental experience. We find one state of consciousness to be entirely different in kind from others ; we find one broken in upon and interrupted by others ; we find the so-called stream suspended by long intervals of sleep. James's answer to this last difficulty, that on awaking from sleep, the mind begins again just where it left off before sleep, is not satisfactory. Indeed a *continuum* or stream could not enter into consciousness at all until it broke up into a plurality of discrete factors, (as required by relativity), and these are brought together again into unity of system. This implies a mental principle which both differentiates, and co-ordinates differences into the higher unity of many in one.

(c) That mind or self is "a *wave* of consciousness" ; as a wave of water passes over a pool by taking up into itself successive molecules of water, passing them through itself, and leaving them behind it ; so mind is continuously taking up new states into its consciousness, retaining them within

itself for a moment, and then letting them lapse into unconsciousness again. Thus, like the wave, the self remains much the same in form, but its constituent elements are continually changing. Its identity is of form, not of substance (Morgan).

(d) That Mind is like the *flame* of a candle: new materials are continually rising into the flame, feeding and maintaining it, and becoming transformed within it, and then passing out of it again, so that nothing in the flame remains the same for a moment except its form (Helmholtz, who means this, however, to be an illustrative analogy, rather than a theory).

Or as a flame.

But these are only metaphors.

**Objections to the sceptical theory.**—Such theories are open to insuperable objections. Thus—

(1) While claiming to be 'experiential,' they ignore the fundamental fact of experience on which all knowledge rests, *viz.*, the fact of *self-consciousness*—that we are *conscious* of self as the permanent *subject* of successive states and acts—that which feels and acts—and not merely as the series of them.

These theories ignore the evidence of our consciousness.

(2) They thereby fail to explain 'experience' itself. Whether isolated states of consciousness are possible or not, real experience certainly consists in the plurality of states viewed in their *relation* to one another. But states of consciousness can be related to one another only by being related to the common subject of them. Thus, one fundamental relation among the states themselves is *succession in time*. But how can any one state understand itself as *before* or *after* other states, or know anything about other states? Time is the relation of the states to one another in virtue of their relation to the common self which feels them all. It is a relation of succession among states and events, but succession has no meaning except in relation to a something which undergoes these changes, and endures through them all. If we

Further, conscious states can be related to one another only by being related at the same time to a common subject present in them all.

Order of states in time has meaning only to a principle which is present in all the states.

drop the essential self, therefore, which endures through the successive states, time is inexplicable.

And therefore a permanent self-preserving mental principle.

A succession of perceptions, it has been remarked, is not the same thing as a perception of succession. The latter is possible only to a perceptive power of which the successive perception are so many different applications of modes, and which is therefore present in them all. The units *a, b, c, d*, cannot be conscious of themselves as a series and of their relations to one another—only an *X* can be so, which includes them all under it as its own functions and activities.

And further, one state of consciousness cannot be supposed to know other states ;

(3) And further, states of consciousness cannot be supposed to know their own meanings (*i. e.*, the other things which are implied in them or cause them—*e. g.*, a sensation of sound cannot know itself to be the sound of a gun fired three miles away). This is possible only to a higher consciousness which includes the sensations together with their relations—a consciousness of consciousnesses, so to speak—an inclusive conscious power of which these states and activities are so many applications in time, and which is itself, in some sense, above time. For the mental states have no meaning except in relation to something other than the states themselves, *viz.*, to the thinking principle which experiences them, and the external world revealed in them.

And still less can they be supposed to know things and relations of things external to themselves.

This supposes a principle which retains them all together, and interprets them.

Thus knowledge involves not only conscious states and their relations in time, but a subject which has the states, and objective things which the states reveal. And the states reveal the things as having relations of space, time, substantiality, causality, plurality and totality, action and reaction, possibility and impossibility, means and end. The knowing self therefore must stand above these

states so as to look down upon them, and interpret and understand them. For these facts and relations, which are the real objects of knowledge, are not contained in the states themselves ; and can have no meaning except to a thinking principle which is present in all the states, and takes all the states under its view, and interprets them as signifying and revealing things and relations of things beyond the states themselves.

The above theories on the contrary suppose not only that a feeling can exist by itself, but that a feeling can form ideas of other feelings, and from these draw inferences as to its own position in the time series, and as to the realities beyond itself. But this surely is impossible. It is possible only to a self which uses its conscious states as means of knowing things.

Paradoxical  
character  
of these  
theories.



## XV.

### MIND AND EVOLUTION.

#### § 51.

#### *Mental evolution in the Individual, in the Human Race, and in the Animal Kingdom.*

The meaning  
of evolution,

Three  
possible  
stages of men-  
tal evolution.

From the  
very beginn-  
ing of consi-  
ous life up to  
the beginning  
of the human  
race ;

From the  
beginning of  
the human  
race up to  
human mind  
as it now is ;

**The questions involved.**—The above inquiries regarding the nature of soul and mind as they now are, suggest further inquiry into the question, how they have come to be what they now are. This brings us back to the question of evolution, and first : whether evolution can be applied to mind. Evolution in the strict sense supposes a principle which differentiates itself into many parts adapted to many functions, and at the same time integrates and co-ordinates all these parts and functions for the production of a higher unity of result—resolving itself from one into many, and bringing back the many into the synthesis of a higher and more concrete one. Is this process, then, manifested in the history of mind ?

It follows from the above definition that evolution is manifested most clearly in the growth of the individual organism from the primordial germ-cell to the mature form. But since the publication of the "Origin of Species" in 1859, the same principle of growth has been applied to races and species of individuals. It has been assumed that the first living creature was a simple particle of protoplasm, and that out of this the different species of plants and animals have differentiated in the course of many ages, just as the different organs of the individual organism differentiate in the evolution

of the individual from germ-cell to maturity. Hence the question arises.

(a) whether the individual *mind* also passes through, from birth to maturity, a process of growth by differentiation and integration of functions, similar to that which takes place in the individual organism ; and

(b) whether such mental development, so far from being confined to the individual life, has been going on through the whole history of the human race, from the first human being up to the highest specimen of the race at the present day ; and the still wider question

From the infancy of the individual mind up to its maturity.

(c) whether there has been, as some think, a continuous evolution of mind from the point at which life first became conscious in the animal kingdom, up through the various grades of animal life to the highest manifestation of conscious life in man. This last hypothesis would require us to suppose that rational human mind has grown by continuous differentiation out of non-rational mind as manifested in the lowest animal life—human mind out of animal mind—the view of Darwin and others. We shall think first of the development of mind in the empirical sense, *i. e.*, of the capacities and faculties of feeling, thinking and willing, and the first question will be that of

Is rational mind only a more developed form of animal mind

## § 52.

1. **Mental development in the individual**, or whether the growth of the individual human mind from infancy to maturity is a process of development in the same sense as the growth of the organism.—Growth by evolution is not a mere increase of bulk in any sense (like that, *e. g.*, of the rolling snowball) ; nor a mere differentiation

Development includes more than mere growth in quantity.

Is, then the progress of the individual mind from infancy to maturity, of the nature of development?

of parts (which by itself is dissolution); but is such a multiplication of parts and functions as is accompanied at every step by co-ordination, which makes them all subservient to one controlling principle, as means to end. Does mind, then, grow in this way? We must here compare again the case of organism. The organic life of the individual begins with the primitive germ, and develops continuously through a succession of forms, becoming always more highly differentiated and co-ordinated.

Does mind grow as the body grows?

Does *mind* then grow in this same way? If so, at what point in the process of organic development does mind make its appearance, and through what stage does it grow into being mature mind? We may here, as usual, consider mind in its two senses—in the empirical sense, as merely the system of connected activities and processes which make up the conscious mental life; and in the metaphysical sense, as the something which carries on these activities and processes, and lives and realises itself in them and through them.

#### A.

Do the faculties of mind undergo development (considered apart from their substance)?

Considering mind first, then, in the 'empirical' sense, as the system of processes which make up our conscious life, we have to consider how these different powers and functions,—these many different capacities of sensation and emotion,—these powers of thinking, remembering, imagining, reasoning, deliberating and willing,—have come to be differentiated and co-ordinated together as functions of one mental life, and one collective consciousness. The mental life in this sense begins at the point at which soul begins to exercise its power of being conscious of its own states and processes. That, in all probability, is at the moment of birth, when all the conditions of consciousness are present.

From this point onwards, we know from experience, there is a gradual and continuous differentiation and co-ordination of conscious powers and functions, which presents all the characteristics of development. We are justified, therefore, in speaking of an *evolution* of the empirical powers and capacities of the individual mind. And, in dealing with this development of individual mind, we may here consider first and mainly—

**The antecedent circumstances or conditions** on which the mental development of every individual mind will depend. It will depend

(a) Partly on what it has *inherited* from parents and ancestors. It has inherited, at least, the structure of body and brain. And the question what the individual mind will come to be in the course of its development, depends to some extent on its inherited organism. Still, the meaning and extent even of organic inheritance is an unsettled question. Thus we may ask—

(i) The new powers and capacities which an individual may acquire by the efforts of his own lifetime—are these inherited by his children? If so, our own mental powers and capacities will be the accumulated results of those gradually acquired by our ancestors from the beginning of the race. Darwin made this the basis of his theory of mind. Spencer has founded his psychology on this possibility of the inheritance of acquired mental modifications.

(ii) Or is it the case, as many hold, that powers and capacities acquired by individuals through their own experience and effort, are never inherited by descendants—in other words, that there is no inheritance of modifications, *acquired* from the

Yes.  
This is seen to be the case in every individual mind.

And the conditions determining the development of the mental powers of individuals during their own life-time include—

Powers and dispositions inherited from parents ;

Which is complicated by the question whether mental powers so-acquired by

parents are  
inherited by  
children ;

outside, but only of such as arise by spontaneous modifications within the germ-cell ? (Weismann). "The study of heredity suggests, though it would be hard to say that it has proved, that man is almost entirely the product of inborn factors which are little affected by environment." This is the great biological controversy of the present day.

The physical  
circum-  
stances under  
which one  
grows up :

(b) Partly on its *physical environment*, or the outward circumstances in the midst of which it develops, such as country and climate, occupation and food, comfort or hardships, leisure or toil. Thus it is possible that the Negro and Esquimaux races have, to some extent, been made to be what they are by being exposed for many thousands of years to the external influences of equatorial Africa and the polar regions respectively. Taine has attempted rather fancifully to explain the mental characteristics of the English people and their literature from the character of their country and climate.

The minds to  
whose influ-  
ence one is  
subjected :

(c) Partly on its *mental and social environment*, or the mental influences of the society within which it develops—of parents, teachers, companions—the influences of example, training, and education.

And perhaps,  
a distinctive  
character  
bestowed by  
nature on  
every indi-  
vidual soul in-  
dependently  
of circum-  
stances.

(d) We may suppose, however, that, apart from organization and environment, the soul has an *essential and inherent character of its own*, in virtue of which it is not wholly determined by, but to a considerable extent determines, its external circumstances, *viz.*, by the expansive, self-realising energy of its own nature. If this is so, its development will not be wholly a development by *epigenesis*, or imposition of new forms from without by external influences (whether of physical things or of other minds), but an *evolution* in the literal

sense, *i. e.*, an *unfolding* of latent capabilities from within. The details of this enquiry belong, however, to psychology.

Of the above factors, probably heredity and social environment have most effect in determining the development of mind and character. As to which of these is the more important, opinion has wavered very much. Sometimes it has been assumed that men are born practically equal in mental powers and tendencies; and that it is the circumstances into which they have been born, and the influences to which they have been subjected from infancy, that make them develop so differently in character and worth. This was the tendency of the school of Rousseau. Others have thought that character is determined by inheritance wholly. The individual is the meeting point of various converging lines of hereditary influence (coming down to him through parents, grand-parents, etc.,) and his own character, criminal or saintly, is the resultant of these converging influences. This view has been worked out recently by the Italian psychologist Lombroso, who tried to prove, *e. g.*, that every criminal carries in his organism unmistakable marks of his criminality and that inherited character, though it may be repressed, cannot be effaced from the system.

Heredity  
or social  
environment  
—which is  
of most im-  
portance?

### § 53.

**II. Mental development in the human race:** whether there has been a development of mind going on through successive generations since the first beginning of the race to the present day. Such development in the race would imply that the human mind, at its very beginning, was of a much more elementary kind than it is now; and that a continuous differentiation and integration of powers and capacities has been going on in the individuals of successive generations; and that the new powers acquired by individuals have been transmitted by inheritance from generation to

Has there  
been a con-  
tinuous men-  
tal develop-  
ment going  
on through  
successive  
generations  
of human  
beings?

So that minds of the present day are what they are by accumulation of powers acquired through the ages.

generation, and have thus gone on accumulating down to the present day. If this be so, then the highest mind of the present time will be the result of innumerable slight modifications in mental capacity and power attained by his individual ancestors of all preceding generations, and inherited by himself. This is the view held by most evolutionist psychologists since Darwin; and it is on this hypothesis that Spencer has based his psychology.

Two rival theories of inheritance.

The question of inheritance, however, and of evolution by inheritance, is surrounded with difficulties. The differences between the school of Lamarck and Spencer and the school of Weismann has already been referred to—whether development, mental and physical, is by the inheritance and accumulation of ‘acquired modifications’ (*i. e.*, modifications of form imposed by force of external circumstances), or is produced by spontaneous variation from within the germ itself. Nevertheless there is an undoubted difference of mental capacity between different branches of the human race at the present day, *e.g.*, between the Australian whose intellect cannot grasp any number beyond that of his own fingers, and the members of advanced Aryan and Semitic races. How are these differences to be explained? Are we to suppose that the different races were created just as they now are, and that they have remained the same since the day of creation? Or are we to suppose that the earliest human beings were all intellectually as high as the highest now are, and that some branches of the race have degenerated, while others have remained the same? Or are we to suppose that all human beings were originally as low as the Australians and African Bush-

Different ways of accounting for mental difference of races.

men are now, or lower? and that some have advanced in mental power, while others have remained stationary? Do modern Europeans and Indians possess greater intellectual grasp, and keener moral perceptions than their remote ancestors of Homeric and Vedic times, or times still more remote? If so, this would imply that there has been mental development in certain branches at least of the human race.

#### § 54.

**III. Mental development in the animal kingdom** up to man: whether there has been one continuous development of mind, from the first elementary feeling of the first and lowest animal species that rose to the threshold of consciousness, up through all the successive phases of animal life into the human race. To assume this is to assume that human mind, has grown by continuous development out of animal mind so that there is no essential difference of kind, and no impassable gulf between them, but only a difference of degree. This psychological question is obviously connected with the biological one: whether the human *organism* has been developed by continuous modification from lower animal forms. Darwin in his 'Descent of Man' (1871) maintained that not only the body, but also the mind of man has originated in this way. Others, however, think that, though the physical organism may have arrived at its present form by continuous development from an animal form, there is, nevertheless, an impassable gulf between animal mind and human mind; and that human reason marks a *new beginning*—whether it was a new act of creation on the part of God, or the coming into

Has there been a continuous development of mind going on through all the successive species that have followed one another in the animal kingdom;

From the first appearance of consciousness in animals,

Up to human reason?



operation of an agency already existent, but hitherto latent in the sphere of nature. The possibility of development from animal to human mind, therefore, depends on the nature of reason—is animal mind such that it is impossible for it to develop into rationality?

§ 55.

B.

But the psychologist may go beyond the processes of feeling, thinking and willing, that constitute the empirical life of mind. He may rise into metaphysical psychology and study the substance of mind or that which feels, thinks and wills, and consider whether this substance of mind undergoes development.

(a) If one assumes the materialistic view, that brain is the substance of mind—that brain is what feels, remembers, reasons, and wills—then the question of mental development will be identical with the physiological question of brain development. It will be identical with the inquiry how the masses of cells making up the brain become differentiated from the rest of the body and adapted to consciousness; and how they become differentiated among themselves into the various ganglia of cerebellum, lesser centres and cerebrum, and thereby adapted to the different processes and functions which make up the conscious mind. In other words, mental development becomes a question of comparative physiology. But these are, after all, only the organs of mind; and what psychology is concerned with is not the organs but the power which evolves and uses them.

(b) Or the psychologist may adopt the dualistic view that that which feels, thinks and wills is a unit of a particular kind of substance having nothing in common with the substance of brain and body, and has no connection with the physiological life of the organism; that it is inserted into the already living organism at some point in its pre-natal life; that, when it enters into the organism, it already contains all the mental powers latent in it and requiring only to be awakened. We cannot therefore speak of development as producing any-

thing new ; it will be merely and awakening of power already latent in the substance of mind (compare the theory of innate ideas). Various theories have been held as to the way in which the soul-substance comes to be brought into connection with the material body. Thus there is—

*Traducianism* : or theory of transmission : which supposes that the soul is contained in the organic germ from its very beginning, and is derived from the parental soul in the same way as the organic germ is derived from the parental organism ;

That soul is transmitted from ancestors ; .

*Creationism* : which supposes that every soul is specially created as a new unit of spiritual substance, and inserted into the organism as some point of its embryonic development, or at the moment of birth ;

That it is created in each individual ;

*Pre-existentialism* : which supposes that soul has had independent substantial existence before the material germ and organism came into existence, and has taken up its temporary abode in the organism at some point in its pre-natal development (as according to theories of pre-existence, transmigration, metempsychosis).

That it existed before the present life.

According to these views, then, there has been no origination of soul by development from what is not soul—souls are either created individually by God, or derived from what is already soul, or have existed as individual souls from all eternity.

It is possible, however, to regard mental substance or soul as the power which evolves and controls the organism and in so doing rises into consciousness of itself as mind. This is equivalent to saying that soul has risen into being what it is from a form of existence originally below the level of soul. Thus we may suppose that life and soul are but lower and higher phases of the same thing ; and that life, without having been soul from the beginning, rises into that multiplicity, co-ordination, and self-conserving unity of functions which constitute soul and makes it to be reality, at a certain point in the course of its development—whether by continuous modification, or by sudden transition from one stage to another. And soul in so doing becomes conscious of itself, and thereby rises into being mind.

That it is the evolving power of nature individualised.

## § 56.

The principal  
problems  
summarised.

**Summary of problems.**—These questions of origin and evolution are the deepest questions of both biology and psychology, and may be here summarised. Thus

Biological—  
the origin of  
life.

1. In biology there is the question, how life originated, and how living species came to be what they are :

Creation.

(a) Did God create life and all the species of living beings just as they now are ? and have they remained just the same since the day on which they were created, so that there has been no such thing as organic evolution ? Or

Creation and  
evolution.

(b) Did God create at first only a single living particle of protoplasm or a small number of particles, and then leave them exposed to the influences of nature ? And have they differentiated by fortuitous variation, the influences of the environment, and natural selection, into all the forms now existent ? Or

Evolution.

(c) Has there been no *special* creation of life at all ? Has life (whether as mechanism or something else) evolved itself by continuous differentiation and integration out of the forces inherent in a self-existent substance of nature (whether material atoms, or something else) ?

Materialism.

If it be so, what must we suppose to be the energy which we thus suppose to be latent in the substance of nature and to evolve it into all these co-ordinated and organized forms ? Is it merely the physical forces of gravity and chemical attraction and repulsion which can be experimented on in the laboratory (materialism) ?

Or is there a force working behind, or in, the physical forces of nature and which is identical with what we call life, so that all the forces of

nature are modifications of one universal life manifesting itself in many forms (vitalism, Bergson) ?

Vitalism.

But life may be conceived in such a way as to be indistinguishable from physical force. To be different it must be the working out of an end, and not merely blind force. And the only ultimate end that we can conceive is that of realising its own concrete reality as self-conscious spiritual being. The energy which evolves the world of living beings will not be blind force merely, nor blind vital impulse merely (which is not essentially different), but the self-realising energy of idea, which is mind. Thus vitalism, to have any meaning, must rise into idealism.

Idealism,

II. So, in psychology, there are the corresponding questions :

Psychological  
—the origin  
of mind.

(a) Did God in the beginning create consciousness, and all the different kinds and degrees of conscious creatures just as they now are, from the lowest animal forms up to man ? And have they all remained at the same stage mentally as on the day they were created, so that there has been no such thing as *mental* evolution ? Or if there has been evolution,

(b) Did God, in creating the first living germs, implant in them, at the same time, not fully developed consciousness, but merely the potentiality of consciousness ? and has that at first potential mental power gone on developing of itself from lower species to higher ones, by spontaneous expansion from within, and influences of environment from without ? And

But the  
problems of  
mental deve-  
lopment cul-  
minate in  
the question,  
whether  
human mind  
be developed  
from animal  
mind.

(c) Has this mental development gone on continuously from animal species into man, so that the highest human reason is but a more highly developed form of the mental power which already existed in the simplest animal form ?

(d) Or are we to suppose that self-conscious mind or soul is not coeval (even in a potential form) with animal life ; but is something essentially different which has come to be added on to life in the course of its development ?

And this depends on the nature of reason.

(e) And are we to suppose that reason is not contained, potentially in lower forms of mind, but marks an entirely new beginning—whether a new creation by God, or a coming into operation of a new power hitherto latent ? This leads to the question of the nature and origin of reason.

The above are the different possible hypotheses, and to determine finally which is the true one, would be to answer the deepest question of philosophy.

Hence the next question is the nature and origin of reason,—that which distinguishes human from animal mind.

## XVI.

### REASON AND PERSONALITY.

#### § 57.

#### *The nature and origin of Reason.*

#### **Is reason a product of development ?**

The distinguishing property of soul is its power of exercising reason and regulating its actions rationally. The problem of mental development reaches its culmination, therefore, in the question regarding the origin of reason. Does the power of rational thought and action, as manifested in man, originate by gradual development from lower forms of conscious activity, or is it something entirely new ? For it may be maintained (1) that rational mind has developed, by continuous modification, from mind as manifested in a more elementary form in the animal kingdom. If so, human mind will differ from animal mind only in the degree in which it has succeeded in differentiating and co-ordinating its functions. But (2) it may be maintained, in opposition to this view, that the power of reason manifested in human mind is essentially different in kind from anything in animal mind, and therefore marks an entirely new beginning—a coming into operation of a power not manifested in the conscious activity of animals. To understand this question it is necessary to consider—

Is reason, then, a product of development

From animal mind ?

Or is it something which manifests itself first in human minds ?

**The nature and function of reason.**—If we attempt to analyse the work of reason, we see that it contains especially the following elements : Reason is the power of interpreting (seeing the

This depends on the question, what is reason ?

meanings of) what is immediately present in consciousness (especially sensation), and thereby apprehending the real things and real events implied in consciousness; and power of using these present things and events as data from which to know past, distant and future events, and to see thereby what will be best for our own preservation and perfection in the future.

It is at least a power of interpreting past and present experiences,

Thus it interprets sensations as revealing the existence, qualities and relations of things and persons immediately present to us. From sensations it distinguishes *ideas* as representations of things and events which either now exist, though distant in space, or which have existed in the past, or which will come into existence in the future. It understands the present as made to be what it is by the past, and the future as rising out of forces and reasons operating in the present; and sees how the forces of the present may be modified and combined in such a way as to work out foreseen and desired results in the future.

Of anticipating in thought future experiences,

And, as life consists so largely of preparation for the future, we may say that reason is the power of adapting the present to the future; or even that it is the future working in the present. But this is the same thing as saying that reason is the power of forming and realising ideas of future good, and that rational life is the realising of idea. Thus understood reason will include the following logical processes:—

Of judging what is good, and of regulating action so as to realise what is good.

(a) It will involve the power of forming *concepts* or *general ideas*. A concept is an idea of the fundamental qualities which constitute the essence or nature of a whole class of things, as distinguished from the superficial and changeable qualities which distinguish particular things from one another; and

But in order to do this it must have the power of reducing objects of present experience to concepts,

thereby extends our knowledge of things from what is true of the *here* and *now* of immediate perception, to what is true of things of the same kind over unlimited space and time. But the essential qualities of a thing mean its powers of preserving and developing itself by reacting on, and occasioning changes in other things—*i. e.*, its power of self-preservation, implying substantiality and causality in the thing. And the changes which a thing occasions in other things depend on its position in relation to other things, in space and time. Hence reason involves understanding of the relations of space and time, of substantiality and causality, and of whatever notions are involved in these relations.

Or notions of the powers which constitute the essential natures of things :

Thus particular triangles, circles, gases, liquids, crystals, are objects of sense-perception ; but to rise above particulars, and understand things as consisting of classes and kinds manifesting common properties, and producing common effects through all time and space, is reason. And to help the mind to know the essential properties which are common to a whole class of things (*e. g.*, humanity as common to all men), and the consequences which must follow these properties (*e. g.*, mortality from the attributes included in humanity), is the function of Inductive Logic.

(b) It will involve the power of *reasoning*, which means the power of using the concept, or notion of class-essence as a middle term by which to connect all past, distant and future things which come under the concept, with the consequences which follow from the concept (*i. e.*, from the essential qualities contained in it)—thus reaching out from what is true here and now, to what has been and will be true in all places and times.

And of using these as means of extending knowledge from the present to the past, distant and future.

Thus, having a concept of humanity (or that essential nature which is common to all men,



Hence the function of reason is to bring past, distant and future together in one here and now.

and makes them to be men), and having found that mortality follows as a consequence from the attributes contained in humanity; we see that, to all beings having humanity as their common nature, mortality follows as a consequence. In other words, we use the concept *humanity* as a middle term to connect the predicate *mortal* with every individual man that has been or will be. We see that all human beings have a common nature or essence (the *concept* of humanity), and that mortality must follow as a consequence from that common nature; we see that certain individuals otherwise new to us partake of that common essence; thereby we see that in their case also the consequence will follow. This process by which we apply already formed concepts to new things is the sphere of Deductive Logic.

And to apply the past and present for the realisation of future good.

Thus, by its powers of conception and inference, reason enables the mind to rise above its present circumstances in space and time; and to view past, distant and future things and events in their relations to one another and to the present time, in one co-ordinated whole of thought; and thereby to adopt its actions to its place and purpose in the system of things.

And thus, by these two functions of reason, we are able to form a conception of the good in its different degrees, and of the Highest Good; and to devise means for the attainment of good; and to regulate our action in conformity with our place and function in the world-system. It is in reason, therefore, that we attain to full self-consciousness and self-control—consciousness of the full potentialities of our being, and self-control to realise them.

Reason therefore implies the presence of the same thinking and self-realising

**Bearing of the nature of reason on the nature of self: self-control, personality.**—Consideration of the nature of reason casts additional light on the nature of the self. Reason,

we can see, consists in regulating and co-ordinating the series of activities for the preservation, development and perfection of their agent. These suppose, therefore, an agent having the power of conceiving its own relation to the rest of the world, and its own good and function as a factor of the world-system; and it supposes, in this agent, a power of controlling its own energy, and of applying it in a series of actions for attaining its good and fulfilling its function. Such self-control implies that all these rationally regulated actions are applications of a single power of self-realisation, inherent in one single self-conscious principle which is present in all the actions. This, therefore, implies the reality and unity of the essential or pure self as described above (personal identity). If self were merely a conglomeration of conscious states as implied in the rival theories—an aggregate, a series, a stream, a wave—then there could be no such thing as reason in the proper sense of the word, nor any difference between animal and human mind.

ego in all actions past, present and future;

And that they are all functions of one self.

Hence the reality and identity of self:

Hence, when it is said that the absolute is reason, it is meant that the absolute is that power which not only evolves the world, but differentiates and co-ordinates all its parts as factors of a unitary system having one common purpose or end,—as opposed to the view that the world is but a fortuitous concourse of atoms working at random. The question then comes to be

And if the world be rational, then of an absolute self.

### § 58.

**Do animals possess this power** of looking before and after, of forming a conception of their own position, relation and destiny in the world, and of regulating their actions so as to avoid future dangers and attain future good, and realise their functions, in the world?

Do animals, then, possess this power of reason

It follows from the nature of reason that rational conduct will be, conduct in which the agent acts with an understanding of what is good and bad in his present circumstances, and foresight of what results it will be in his power to attain in the future, and which of these, if attained, will be for his highest good; and in which he regulates his action in such a way as to realise his idea of future good.

Even in an implicit or potential form?

It must be admitted that the actions of animals manifest rationality.

But is the reason manifested, seated in the animal themselves?

Or does it merely manifest itself through them?

Now many animals have undoubtedly a remarkable power of providing for the future, especially insects. But the question is, whether they do it by explicit thought and reasoning, or wholly by those mechanical adaptations of movements to stimuli in which reflex action and instinct consist. Do they really know and design what they are doing, and do it with clear foresight and purpose? Or do they do it by blind impulse and mechanical co-ordination of movements? In the latter case, to be sure, the question of the origin of the instinctive movements comes to be as difficult as that of reason itself. Indeed the adaptation of means to ends, of the present to the future, which is so manifest in the organic structure and instincts of living creatures, is itself the highest manifestation of rational power. But this evolving and co-ordinating reason which produces instinct in animals is not seated in the animals themselves; in instinctive actions they do not appear to know what they are doing, nor why they are doing it, but to do it by an impulse working in them which they do not themselves understand. The rational power which is contained in the energy working in nature, and organizing the physical structures of animals, must be the same power which organizes their instincts also, but reproduces itself consciously only in the self-consciousness of man.

**Any transition from animal to rational?** We must therefore inquire whether there be any possible development from the non-rational, random, reflex and instinctive actions of animals to the rational, self-conscious, foresight and self-control of man.

The actions of animals commonly classified as random, reflex and instinctive.

(a) In the first place we may ask : is there any passage from *reflex* action to reason? Reflex action is mechanical response to external stimuli ; and with repetition its tendency is, not to become more clearly conscious of itself, but to become more and more mechanical and unconscious (as, *e. g.*, in the processes of organic life)—though some thinkers, *e. g.*, Spencer, have sought to explain even rational action as merely a complex of reflexes working mechanically.

Is there any possibility that reflex actions can rise into rational ones?

(b) Is there, then, any passage from *instinctive* action to rational? This seems very improbable : instinct seems to be complete in itself, and to supply all the needs of the creature's simple life, and leave no motive for further development. The creatures in which it is most highly developed, such as bees and ants, seem to be almost incapable of learning anything new. If they do learn anything more, and thereby modify their own instincts, it is by a power different from instinct itself. In producing instinct the evolving power has branched off into a channel different from that leading to reason.

Or that instinctive actions can become rational?

(c) We may then ask : is there any possibility of further development along the line of *random* or *spontaneous* actions? This is more probable, and it is from these that the most plausible attempt has been made to derive rational action from action of a lower kind.

Or that random actions can develop into rational

Thus we may suppose that out of several random actions, one happens to produce a beneficial and therefore pleasurable result. Then the idea of the pleasurable result will be associated with the

The most plausible attempt to derive rational action

from actions  
of animals is  
through ran-  
dom actions,

As made by  
Bain.

But this  
would  
not lead to  
reason.

But the great  
question is :  
is there  
rationality  
any where in

idea of the action which produced it. Afterwards, if the idea of the pleasure is by any means revived it will revive the idea of the action along with it by force of association. But the idea of anything pleasurable produces desire, and it is the nature of desire to excite activity and prompt to action. Thus the idea of a beneficial result will tend to reproduce the requisite action for its attainment. Now such elementary association of ideas tending to repetition of actions leading to beneficial results, is possible in animals. And we see even in such simple cases a beginning of that power of adapting present actions to future good which is the essence of reason. And we may suppose further that even in animals, two rival desires may rise simultaneously, and may inhibit each other for a time, until one proves stronger than the other ; and in this we shall have a beginning of conflicting desires, and of rational deliberation and volition. Thus random and spontaneous actions such as those of animals may result at last, it is thought, in rational action.

But such accumulation and such mechanism of ideas and desires, even if it were possible in itself would not account for that foreseeing, judging, self-adapting and co-ordinating power which we call reason. Reason would not follow if there were not already an impulse of self-development working from within the mind itself in the direction of reason ; *e. g.*, if reason were not already present implicitly, waiting for the opportunity to develop itself. Thus all attempts to explain the beginning of reason assume reason as already existent. Hence

**The reason implicit in nature and animal instinct reproduced consciously in man.**—If we may suppose man to be in some sense a product of nature, we must turn our atten-

tion back upon nature, and consider whether there is a rational power working implicitly in nature. Is the power which manifests itself in the evolution of nature and of the animal and human organism and instincts, a rational power? Is there, inherent and implicit in its operations, that very attribute of self-adaptation and self-control which, when manifested in our own consciousness, we call reason? If so, then human reason will be the reproduction in individual self-consciousness, of the self-adapting, self-regulating, and therefore rational power already working in physical nature, and in organisation and instinct.

nature, as opposed to mere mechanism?

If so, we can understand the relation between the reason manifested in animals and that of man.

If there is reason in nature, the difference between reason in nature and in man will amount to this: reason operates indeed in physical nature, in organic development and life, and in instinct; but physical processes, plants and animals, are not conscious of the reason working in them and determining their actions. This reason does not belong to them; they know nothing about it; they are only its instruments. In man, on the contrary, the reason which regulates his actions is *his own*. He is a self-conscious, self-controlling person, differentiating and co-ordinating his activities for his own ends. In him the reason which operates in nature becomes individualised or reproduced, and he is conscious of it as the essence of his own self. He is a finite reproduction of the absolute. He is conscious of his own self as a centre from which the absolute power works finitely and relatively, but still freely and for ends of his own.

The rationality of animals, e.g., instinct, will not belong to the animals themselves,

But be merely an application of the reason operating throughout nature.

This view does not require us to assume that human mind (or even human organism) is derived by continuous modification from that of animals. It is now beginning to be understood that organism

Man's reason on the contrary will be his own, because he is a

rational self,  
in whom  
reason be-  
comes per-  
sonal.

cannot undergo alteration in any one essential point without reconstruction as a whole; and it is becoming probable that varieties originate not by continuous modifications of parts, but by sudden reconstructions and transitions of the whole from one form to another (called development by *mutation*). This may be true of mental as well as of physical organism; and this view makes it easier to understand that the appearance of reason may be a new and even sudden beginning, so far as individual minds are concerned—a turning aside of the evolving activity into a new channel and new direction.

### § 59.

#### *Personality and Personal Rights.*

We say,  
then, that  
man is distin-  
guished by  
personality.

It follows that rational soul is the highest product of development. But there are many souls, and they live and evolve their potentialities by mutual co-operation with one another in society. It follows that every soul has duties to perform in relation to other souls, and has a right to expect that other souls will perform their duties towards itself. This fact, then, that the rational soul is made, by its power of reason, to have rights and duties in relation to other souls, is expressed by saying that its rationality makes it to be a *person*. And the relations and consequences which arise out of the mutual interaction of the many individual souls in society, constitute the subjects of Ethics and Moral Philosophy. Hence

What then is  
a person?

A person is a  
being who is  
conscious of  
himself as  
having an end  
and good of  
his own to  
realise.

**Personality.**—A person is a being that exists in some measure for itself, *i. e.*, is an end to itself; (or has a good of its own), and is aware of itself as such, and differentiates and regulates its action in conformity with that end (*vis.*, the realisation of its good). This means that it is aware of itself as having certain relations to other things; and as having a certain place and purpose in the system

of things; and as having the power of controlling its own activity for its own preservation and development, and for the fulfilment of its function and purpose in the system; and as realising its own good and end by fulfilment of its function in the system. In short, what makes a person to be a person is self-consciousness, self-controlled activity, and an end or purpose to be realised by conscious activity.

But a finite person is conscious of realising his end through the fulfilment of function in relation to other persons.

The successive activities of such a being, therefore, are only successive modes or applications of its one fundamental activity of self-affirmation and self-realisation, so that the being which manifests itself in such successive activities remains the same identical reality throughout them all (personal identity).

It follows, however, that there are degrees of personality. This conception of personality as self-conscious and self-controlled reality can be fully realised only in an absolute being—only an absolute being can be wholly and completely *for* and *by* itself, wholly independent of other beings outside of itself, and therefore wholly self-controlled. Finite persons, on the contrary, exist by action and reaction with other persons; their self-realisation is possible only along with and through that of other persons; and they exist not for themselves *absolutely*, but only in so far as they are themselves essential to the development and harmony of the system as a whole, in which they exist as factors co-operating with other factors for a common end. Therefore the personality of finite beings is merely relative. This is opposed to pluralism, which makes the individual to have absolute existence in himself, and thereby makes him to be a petty god without responsibility to other beings.

Only the absolute can have complete personality.

**Persons related as organs of an organism.**—But such co-ordination and reciprocity of the functions of things constitutes organization. Hence a system of such correlative personalities,

Hence the plurality of persons each seeking to realise his own



good will be related as organs of an organism,

co-operating together for a common end, will constitute a *society* in which every individual, like an organ of an organism, will realise his own good, and the perfection of his own nature, only by contributing to the common good and end of the whole—will “find his own in all men’s good.” In such a system of persons, therefore, the activity of every one will affect more or less all the others; each will be, at the same time, both an end to himself because he is a person (*i.e.*, will have rights), and a means to the ends of others and of the whole because he is a finite person (*i.e.*, will have duties)—other persons being both ends to themselves and means towards the whole in the same sense as he is to himself. Such a system will be an *organism*. And this reciprocal relation of persons as organs in a social organism will give rise to the reciprocal rights and duties which it is the work of moral science to explain and define.

Each realising his own good by promoting the good of others.

Hence the relations of persons in society give rise to rights and duties.

Every person is an end to himself, and has therefore rights of his own.

**Rights and duties.**—It follows that every person, because he is a person, has a *right* to preserve, develop, and perfect his own nature, and a *claim*, therefore, that the actions of other persons shall not be such as to hinder his own self-realisation—in other words, that he shall be treated as an end in himself (in so far as his being such is consistent with other persons being such), and not merely as a passive instrument for carrying out the ends of others.

This, then, is the principle underlying moral rights and duties. It rises out of the nature of personality, and the necessary relations of persons to one another as members of the system of spiritual reals—the social organism. As persons, we are ends in ourselves and have rights; but as relative and finite persons, we are means towards

But his own personal ends must be consistent with

other ends and therefore have duties. And rights in one person will correspond to duties in others ; what one has a right to claim, it will be the duty of others to do.

the personal ends of other persons.

Hence the essence of the moral law of reason may be expressed in the formula : treat every rational being as an end in himself, and not as a means merely towards the ends of others.

But to discern the relations of persons in society as continually adjusted and re-adjusted by their actions, is the function of reason as moral or practical. Hence

Therefore every person has duties as well as rights.

## § 60

### *Moral Reason and Moral Law.*

**Meaning and origin of moral law.**—In dealing with law it is necessary to distinguish between

Hence the actions of persons must be regulated according to uniform rule or law ;

(1) The literal and original meaning of the word 'law,' *viz.*, rules of action *laid down* and imposed upon rational minds by the will and command of some superior power, whether political, social or divine ; and

(2) Its secondary and derivative application, to signify all uniform modes of procedure—uniformities in the working of the physical forces of nature, and in the working of conscious mind—which are necessary in themselves without being commanded by any one—giving physical, psychological and logical laws, etc.

And law regulating rational actions is moral law.

To which of these kinds of law, then, does moral law belong ?

But there are different senses of law.

(a) Some have referred it to the first class, *viz.*, law in its original and literal sense of what is 'laid down,' and imposed on subordinate wills by the will of a higher power, whether of an absolute

Law as conformity to command ;

human ruler, or of society collective, or of God. But all rational commands must have reasons for them, and even if obedience to moral laws be commanded, yet the ultimate standard will lie, not in the command, but in the reason for it. Therefore

Law as conformity to necessity, physical and psychological ;

And law as means for the attainment of an end.

(b) The ultimate ground of moral rightness will be something in the essential nature and relations of things, from which the *need* of certain forms of conduct follows as a natural consequence. For, if the plurality of minds form a system working out an end or good, then there must be such a thing as harmony and discord, furtherance and hindrance, co-operation and obstruction, in the actions of the different minds ; and it is evidently in this harmony and discord, fitness and unfitness to one another of the activities of rational beings, that right and wrong must ultimately lie. It follows, therefore, that moral law will be law in the secondary and derivative sense, *i. e.*, it will not be made to be what it is by the command of any one, but will rise necessarily out of the nature of things—in this case, the nature of personality and the social organism. But

Moral law is not made by physical nor psychological necessity ;

But, as logical law is meant for the attainment of the end of truth, or intellectual perfection,

(1) It will not be law in the same sense as physical and psychological laws (law in the former sense), because these are uniformities which cannot be violated—they belong to the essential nature of the physical and psychical forces, and work themselves out in matter and mind by inherent necessity, whether we will or not.

(2) It will belong rather to the same class as logical laws—it will be a form to which voluntary action will have to conform, not, from any inherent necessity of its nature, but as a necessary *condition* of its attaining the highest end of all rational action,

*vis.*, the full perfection of the rational agent. Thus we must voluntarily conform our thinking to *logical* laws if we are to attain our desired end of knowledge (correspondence of thought with reality); and if we fail to do so we are punished by the evil consequences of error and self-deception. We must conform our dealings with our fellow men to *moral* laws in order that we may fulfil the highest function for which we exist as spiritual factors of the world-system, and thereby attain the highest perfection of which our nature is capable; and if we fail to do so, we fall into degeneracy and corruption.

So moral law is means to the performance of function, and thereby the attainment of the highest end for which a finite person exists.

We can break, indeed, all the laws of logic, but in so doing we render all our labour of thought abortive, and sacrifice that perfection of our nature which consists in the truth of our thought: its conformity with reality. So we can break all moral laws, but in so doing we sacrifice the highest potentialities of our nature—we “lose our own souls.” We need not say, therefore, that moral law is law in the sense of being commanded by any one, not even by God—rather it is required by the conditions in which we exist as member of God’s system of spiritual ‘reals.’ Hence the meaning is expressed better by the word ‘obligation’ or ‘duty,’ than by ‘law.’

**Moral Reason.**—We have to ask, then: by what power of mind do we become cognisant of moral law or obligation? The kind of faculty required for the perception of a quality will depend on the nature of the quality to be perceived. Therefore the nature of the moral faculty required will depend on the nature of moral quality. Now we can see that the rightness and wrongness of actions, and the obligation to do certain kinds and

Moral law for the regulation of conduct supposes a power of discerning and understanding the relations among persons as organs of the social organism;

And thereby discerning what the rights and duties of different persons are ;

And discerning thereby what general forms of action are required for the highest good of individual persons, subject to the highest end of the whole for which persons exist.

This will be reason as power of moral judgment.

avoid others, must have their ground in the relations subsisting between different rational beings and made and unmade by their activities as factors of the world-system. Every self-conscious, self-controlled being has a relatively independent personal existence of his own, and thus far exists *for* himself, and as an end to himself. But at the same time he is a *finite* being and factor of a system of finite beings having a common end and good. He exists, therefore, not wholly and solely *for* himself, nor as end only to himself; he exists also for the sake of the common end of the system as a whole. Therefore he can find his own highest perfection only in the fulfilment of his function as a factor of the system and an agent in realising the common end. It follows from this that morality must consist in a harmony and fitness of relations produced by the actions of the rational beings included within the system of related minds; in other words, in voluntary adaptation of the actions of every individual to his position and function in the system of relations; which is at the same time their co-ordination and harmony with the actions of other individuals, so as to converge towards one common good.

Moral judgment, therefore, in the highest sense, will suppose a power of rising above our own immediate circumstances in time and place, and forming a conception of the system of related minds as a whole, and our own place and function in the system, and the changes of relation resulting from the changing activities of individuals. But this power is Reason. Hence moral judgment will be a function of reason; and reason in so far as it is applied to discern our relations to other

rational beings, and harmony and discord of relations, and discern how harmony of relations is affected by conduct ; and thereby to discern what is fit and unfit, right and wrong, in the conduct of rational beings, and to form a conception of the laws or rules by which conduct should be regulated (*i. e. must* be regulated if it is to attain its highest end)—will be *Moral Reason*, or reason as faculty of moral judgment.

## XVII.

### SOCIETY AND ETHICALITY.

#### § 61.

#### *Society and the Individual : Social Morality.*

Mental development is possible only to individuals living in social intercourse.

How then does society affect the individual, and how does the individual affect society?

Mental development is stimulated largely by the necessities of life imposed by physical environment, viz.,

The necessities of resisting and utilising the forces of nature ;

#### **The individual and his environment.—**

The individual soul-power, through its organism, produces effects on external nature and on other organisms, thereby manifesting itself to other souls. Through its organism also it receives impressions from the outside, which it learns to interpret, (1) some as manifestations of external nature and of the powers or power which operates in and through nature, and (2) some as manifestations of other souls like itself. It thus lives in interaction with nature, and with other souls—with the world of things and the world of minds. Hence the life and development of the individual mind must be influenced by its physical and mental environment. Thus as to

1. *Physical environment*,—the individual lives in constant interaction with physical nature. This interaction takes two forms :

(a) He has to *resist* the forces of nature so as to preserve himself against them, *e.g.*, against the forces of cold, heat and want, against storm, earthquake and pestilence ;

(b) He has to *lay hold* of the forces and materials of nature, and modify and adapt them so as to make them subservient to his own purposes—the soil with its chemical properties to rear crops ; stone, wood and metals for houses, tools and machinery ; wind and water for transport ; electricity to turn wheels and convey messages

and so on. Hence the development of mind will depend, in some degree, upon the natural forces which it has to resist, overcome, and make *subservient* to itself. But what we have mainly to deal with here is—

2. *Mental environment : Society.*—He lives also in constant interaction with other rational individuals. Thus he receives from other minds the greater part of the knowledge and skill by which he is able to protect himself against nature, and to apply its forces and materials to his own purposes. But he can do little towards this protection and application by his own unaided strength—he requires, in every thing, to be aided by the skill and energy of others—the individual can do but little to provide himself with shelter, clothing, food, protection, without the co-operation of other individuals. Thus, the development, and to a great extent even the existence, of life and mind, depends on the co-operation of many individuals working together and assisting one another in communities ; in other words, on the formation of society, and social reciprocity (the ‘social organism.’) An individual living in absolute isolation would not be a human being, but either “a god or a beast,”—either far above, or far below humanity. Hence various

But it is possible only by accumulation of results attained by many minds in inter-

Hence every mind is influenced more or less by other minds.

**Questions involved.**—Philosophy has to consider, therefore, the relation between the individual mind and the community of individuals—the man and the society in which he lives, moves and has his being. In regard to this relation the following questions have to be considered : the collective influence of the aggregate body upon its individual members ; and the influence again of the individual members upon the collective body. Hence we may consider separately—

But various questions arise here—



How far is the individual made to be what he is by the collective influence of other minds?

How far is the collective mind of society made to be what it is by a few individuals?

Is the progress of society due almost wholly to a few individuals endowed by nature with exceptional genius, and made almost independent of the influences of other men?

I. *The relations of society collective to the intellectual and moral development of individuals.*—How far is the individual made to be what he is by the collective influence of the society into which he is born, and in co-operation with which he lives?—by the influences of parents, teachers, friends, and associates in the business of life, and by the manners, customs and rules of conduct imposed upon him from without by the collective influence of his fellow minds? And how far is his intellectual and moral character determined by the spontaneous expansion and self-development from within, of an innate spiritual nature of his own, enabling him to react upon and make society, instead of being wholly made by it?

Different answers have been given to these questions :

(a) Thus we have the theory of *heroes*—the progress of the human race is brought about not, as might be supposed, by any collective influence working upon individuals from without (*e.g.* that of nature or of God), nor even by any collective movement of development working in all or many minds simultaneously from within,—but by small number of persons of exceptional endowments, appearing here and there and now and then. Such specially gifted individuals have been spoken of as heroes, prophets and men of genius—These, by special innate genius evolve, from within their own minds individually, new ideas and impulses ; and by the force of character, impose them on the minds of others. Thus, from one individual genius as a centre, mental influences gradually spread outwards like circles in water, until they change the whole society in which he lives, and perhaps extend to the whole human

race. This theory of 'heroes' has been worked out most fully by Carlyle in his 'Heroes and Hero-worship.' Common individuals may be made to be what they are by society, but society itself is made by specially gifted and inspired individuals—by the genius or 'Hero' as prophet, king, inventor, thinker and teacher. It was not from society that Shakespeare derived his power of writing poetry, nor Newton his insight into the calculus.

(b) The opposite tendency is to regard the individual as always 'the child of his time' and circumstances—as made to be what he is by the collective influence of society with its established manners, customs and rules of life. The inborn energies of the individual have no inborn motive-force to call them forth, or any inborn *direction* of their own. They get their motive and direction wholly from external impulses, and these are mainly the collective influences of his fellowmen. But this view may take two forms. Thus

It is not society that make these great men—it is the movements initiated by them that make society.

(i) It may be supposed that the social forces which act on the individual—the predominant ideas, manners and customs of his fellowmen—have themselves originated either casually or from the impulse of external circumstances, acting differently on different individuals, and not from any common spiritual power developing itself inwardly in all individuals simultaneously. This is the common view of empirical thinkers.

Which may be understood in a materialistic sense ;

(ii) Or it may be supposed that all the individual minds forming a society are embodiments of a common spiritual power which expresses itself in them all simultaneously, so that the individual minds of a period express collectively the *zeit-geist*, or common spirit of their age—the one spirit manifesting itself in all the individuals.

Or in an idealistic sense.

Thus new movements are due indeed to collective spiritual impulses, but these impulses work from within, rather than from without—are self-developments of spirit rather than mere adaptations to new external circumstances.

What is the relation of society to the moral conduct of individuals ?

2. *Relation of society to the standard of morality prevailing among its members: custom and social morality.*—Society collectively accepts and imposes on all its members a system of moral laws. What is the origin and authority of these laws ? What is the relation of the collective social will to moral law ? Is the law of conduct which society imposes on its members a thing of society's own making, created and imposed by the collective will of society, judging what is most conducive to the order and welfare of society collective ? And does moral law possess no other authority than that which the common will can claim to have over the wills of individuals ? Or does the moral standard of social life proceed from a source deeper than the interests of society and social custom—whether it be imposed by the will of a higher power, *viz.*, God, or follow as a necessary consequence from the essential nature and conditions of spiritual being ?

And therefore to moral law ?

Does the collective will of society make the moral laws which govern the actions of individual members,

(a) That social morality has no deeper source than *social custom* was held by the ancient Sophists and by Hobbes, Bentham and others in modern times. All actions are means to ends, and the only measure of value is utility as means to end. But the only natural end to human beings is pleasure. Therefore the value of actions must be judged by their conduciveness, as means, to the ultimate end of pleasure. Now the collective experience of people co-operating together in society discovers, in course of time, what forms

of conduct are most conducive to the greatest collective pleasure of the community. Therefore society, by collective consent, imposes such forms of action as rules and laws of conduct upon all its members, and enforces the common judgment by punishments. Thus social customs are created by society itself, acting collectively according to its collective judgment of what is beneficial; and social custom is identical with morality. Thus the collective judgment of society as to what forms of conduct are most conducive to the pleasure of society, embodied in its customs, is the only standard of right and wrong, and only ground of moral authority.

Which is the common empirical and utilitarian view?

(b) That ultimate distinctions of right and wrong must have a deeper significance than the interests of a particular society, or even of human beings generally. That conformity of conduct to the moral standard must be conducive to the interests of society, must be admitted; but it is ultimately the moral *rightness* of actions that makes them conducive to interests, and not conformity to interests that make them to be morally right. They are conducive to the highest good of society because they are good in themselves. What, then, is the ultimate standard of rightness? It may be said simply that it is the will of God—that God, in giving existence to finite minds, wills and commands that they conform to the laws of conduct which he wills. But we cannot suppose that God wills these rules of conduct without having a reason for willing them. That reason must lie in God's own nature, and therefore be operative in the process which evolves the system of finite things and minds, and gives each one its place and purpose in the system. It will therefore be

Or is moral rectitude grounded on the necessary relations of rational beings living in society,

So as to be discerned by reason?

And so as to impose itself through reason on all members of society?

And to be independent of the wills of individuals?

accessible to power of reason because the nature of reason is to discern the relations of things as factors of a unitary system, and the place and purpose of each in the system to which it belongs. Hence the difference between right and wrong does not depend on the interest of any individual, nor upon any collective vote of society ; but upon what is naturally and necessarily fit in the relation of the many rational individuals working as factors of a system for the realisation of a common end—as organs of a social organism. And the laws of society are right because society itself is rational, and discerns what is fit and right in the nature of things ; so that its customs are, in most cases, general moral habits, founded on moral intuition of what is right.

### § 62.

#### *Organisation of rights : Ethos.*

Hence the use of moral institutions to define, apply and enforce the laws of

**Moral judgments**—It follows that moral judgment consists in discerning and judging what, it is *fit* and *right* for a person, under given circumstances, to do in relation to other persons, and what other persons have therefore a right to demand that he should do ; in other words, in determining the reciprocal duties and rights of persons under their continually changing circumstances and relations.

Owing to the complexity of social relations and difficulties of moral judgment,

But the relations of persons in society are various and complicated ; and to determine the reciprocal duties and rights of individuals and their due proportions, requires, in many cases, a comprehensive and impartial view of the relations of individuals as members of the social organism as a whole. Such a comprehensive view requires experience and insight often beyond the power of individuals. Hence,

if individuals were left to settle the due proportions of their rights and duties, contention and obstruction would result. Hence the need for an objective code of rights and duties which will guide the moral judgments of individuals, and may be imposed on individuals externally as political and social laws. Hence

**Results of moral judgment generalised and imposed as laws:** Thus arises the necessity of deliberative and legislative bodies who unite in themselves the collective experience and wisdom of society, past and present ; and are able to consider the most frequently recurring combinations of circumstances ; and to determine what forms of action are, under such circumstances, most consistent with a proportionate distribution of rights and duties, and with the harmony of social life. In this way an 'organization' or 'codification' of rights and duties is to some extent accomplished ; and the system of general rules thus arrived at is sanctioned and imposed in the form of political law and social custom. Hence—

Hence the function of moral reason as above,

(1) *Political* laws, which suppose an organized system of deliberative councils to determine the laws to which conduct under given circumstances shall conform, legislative authorities to give them sanction and force, and magistrates to apply them to particular cases.

Imposing moral laws in the form of political laws.

For even political law may be said to have a double purpose—not only

(i) That of public *utility*—to make possible the accumulation of wealth ; but also

Which are partly indeed utilitarian,

(ii) That of public *morality*—to make the activities concerned in the accumulation of wealth to be consistent with a fair distribution of the rights and duties of individuals, and thereby subservient

But partly also moral in their effect ;

to the moral development and highest self-realisation of individuals. Thus far, then, political organization of conduct is at the same time a moral organization of rights and duties. And

And in the form of social laws which are moral as much as utilitarian,

(2) *Social laws* : there are many relations of life which political institutions, with their legislatures and magistracies, cannot take cognisance of, and which have to be regulated by common judgment and *social custom*, without any special or determinate legislation. Thus the many individuals may be led by their several experiences to one common conclusion as to the best form of action in a given class of circumstances; and may, even without joint deliberation, arrive at a general *consensus* that such a form of action should be conformed to by all under these circumstances. Such a form of action thus becomes an established *custom*, sanctioned and enforced by common opinion, though without any formal legal enactment. Such customs of society or social laws are, like political laws, to some extent *utilitarian*, but partly also *moral*, and may therefore be included under the head of moral organization and moral institutions.

While both political and social laws are subject to the judgment of moral reason.

It is not meant, however, that such an organized code of political and social laws is to supplant the moral judgments of individuals. To do so would be to defeat its own purpose, and abolish what is highest and best in the nature of the person—his power of judgment and self control. The total renunciation of private judgment and personal freedom has always meant moral and intellectual degeneracy. The purpose of moral institutions is merely to illumine and guide the individual judgment in cases too complex for the limited experience of individuals; and to raise barriers against the consequences of erroneous judgments on the part of some, and forcible violation of the rights of some by others.

**Ethos.**—The political laws and social customs or unwritten laws of a community, being products of the collective mind, may be said to express the *ethos*, or common moral spirit of the community. We may think of the community of minds as being the individualised expressions of one common mind; of the thoughts of individuals as different forms in which the common mind expresses itself; and of the rules of conduct, manners and customs, prevailing in society as expressing the moral character of one common mind underlying all individual minds, and expressing itself in and through them. Thus it has been said that the individual is "the child of his time," and has "sucked at the breast of the universal ethos"; that is, receives into his mind the prevailing thought, and the prevailing tendencies and aspirations of his time, as if he were but an individualised expression of the one general mind, and individual embodiment of one common life—so that it is the one *zeit-geist*, or common spirit of the time that expresses itself in the many individual minds.

Every people may be said to have its ethos, or predominant moral tendency according to the form of society prevailing in it.



## PART IV.

GOD.

XVIII.

### INTRODUCTORY : THEORIES OF THE WORLD AND THEIR BEARING ON THE IDEA OF GOD.

§ 63.

The world  
consists of  
many subject  
to one,

The world consists of an all but infinite number of things existing in interaction with one another, (because they are finite and therefore conditioned), and co-ordinated with one another in such a way as to co-operate towards one common result and end. But the units composing the world have no unifying and organizing power in themselves—their natural tendency is towards self-preservation, and therefore towards mutual exclusion, disintegration and dispersion. Yet the world exhibits everywhere unity and co-ordination of parts. And this unity and co-ordination of parts reveals to us the presence of an universal unifying and organizing power which works in all the finite forces, and gives them direction and co-ordination and makes them to be one organic whole. Therefore the last and deepest problem of metaphysic is to arrive at a reasonable conception of the unifying and organizing power which thus operates in the world. We speak of it as the infinite, because it is not limited by anything outside of itself; and as the absolute, but it is itself the source of all power, and is not dependent on anything else; and as God, because as evolving power it is absolute idea and will.

And reveals  
a single evol-  
ving and  
co-ordinating  
power.

Therefore  
theory of  
God insepar-  
able from

**The questions involved : summary.** We have therefore to consider the idea of God and the different theories that have been held regarding

God ; and with a view to this, we have to consider again the different theories of the world, because it is out of these that the different theories of God arise. Now the world presented to us in experience is composed of a multiplicity of things acting and reacting on one another according to uniform laws, co-operating together in the production of definite results, and reflected and reproduced in the consciousness of finite minds. Hence philosophy, with the help of science, seeks to answer the question : how this multiplicity of finite things originated and came together, and were made to interact with one another, and to produce this world of nebulae, suns, planets, plants and animal organisms, and finite minds ; and how physical things and minds came to be correlated with one another in such a way that things are able to influence and be known by mind, and how mind is such as to react upon, and conceive, and understand things, and make them subservient to its own ends.

And these questions lead back to certain still more ultimate ones, such as (1) whether this complex world of things and minds is a single organic whole and system, and therefore the product of a single unitary power, and co-ordinated in all its parts so as to work out a common result or end (as assumed above) ; or (2) whether it is a conglomeration of materials and forces which were originally separate and independent, but which have, for some reason, come into interaction with one another, and formed combinations at random, without any comprehensive unity of plan or purpose.

The former of these alternatives gives *monism* : that the world is the product of a single absolute and self-existent power, and is for that reason a

theory of the world—

i.e. how the world of matter and mind came to exist ;

And how matter came to be such as to be knowable by mind,

And how mind came to be such as to know matter.

And there are two or three fundamental hypotheses of the world—

(1) *Monism*, that the world is

fundamentally one ;

(2) Pluralism, that it is fundamentally many ;

(3) To which may be added dualism, that it is fundamentally two.

Of these, monism makes God to be one and absolute,

Dualism to be one but limited,

Pluralism either excludes God altogether or makes him to be many.

Monism makes God to be absolute one, but admits of several different theories of the relation of the one

unitary self-evolving system, of which all parts are co-ordinated together as means to ends, and all proximate ends as means to one ultimate purpose. The latter, gives *pluralism* ; that there is a plurality, perhaps an infinity of self-existent principles (substances and powers), each independent of all the rest ; from which it follows that the world is not a unitary self-evolving system, but a concourse of mutually exclusive and antagonistic principles, producing, by their random interactions, temporary conglomerations—world-systems and living organism—here and there, but without any unity and harmony as a whole. And under pluralism we may include *dualism* : that there are two self-existent principles contending with each other, and that the world is the product of their interactions.

And as to the bearing of these theories on the nature of God—it will be seen that monism in all its forms involves some conception of God as the unifying and co-ordinating principle of the world, self-conscious in his activity, and infinite in potentiality. Dualism may assume God to be rational mind, self-existent and supreme above all other minds : but must make him to be finite in existence and power, having to contend with a rival power. Pluralism, strictly applied, is inconsistent with God as absolute and infinite designing power ; but might be reconciled with the finite gods of polytheism, conceived as occasional and local products of evolution.

But these theories assume different forms, and require fuller consideration. Thus

**A. Monism** consists in affirming that the self-existent absolute is one, and that finite things possess no independent reality of their own, but derive whatever reality they have from the absolute one. But the relation between the self-subsistent one and the world of things derived from it may

be understood in three different ways. Thus it may be supposed (1) that the world of finite things has no *real* existence at all—that it is only appearance, nothing being truly real except the absolute one; (2) that the world of things has real existence outside and independently of the one, but that it has received its independent existence from the one by an act of arbitrary choice, and is not essentially necessary to the one, so that its existence is temporary and conditional; or (3) that the absolute one evolves the world of things from within itself as the material of its own life, so that absolute and relative are each necessary to the other as factors of one concrete and living reality. Hence the first of these three views will be

and the  
many—

1. *Abstract monism*, which carries the principles of unity to the utmost extreme by affirming that it is the nature of the absolute to be indivisible unity, excluding all contradiction, and thereby all ground of plurality; from which it follows that the world of experience, appearing, as it does, to be a plurality of mutually exclusive things contradictory to one another and to the absolute, can have no substantial existence, and can be only illusory appearances, rising only within finite consciousness, and having no existence apart from it. This then is monism because it makes ultimate reality to be *one*; but *abstract*, because it makes the one to be only substance or power which remains abstract in the sense that it does not produce distinct and individual things.

1. It leaves it possible to insist so much on the unity of the one as to abolish the many altogether,

This form of monism, therefore, goes to the extreme of abstracting the *one* from the *many*, and giving real existence to the one by itself, while denying all reality to the many. Hence, if it regard the one as God, it will be *pantheism*, making God to be 'one and all,' and leaving no room for any independent reality other than apparent, of finite

Reducing the world of things to be only unreal appearance.

beings ; or *acosmism*, as denying the reality of the world, (cosmos), and leaving only that of God. The second may be called

2. It leaves it possible to maintain the primordial unity and absolute self-existence of the one alone,

2. *Conditional dualism*, or the theory of creation out of nothing : that the world of finite things and minds has real and independent existence of its own outside of the absolute reality ; but has received its independent existence from the absolute by an act of free creation, so that there are now two realities—absolute reality and created reality—created reality remaining real, free and independent only so long as the creative will allows it, and therefore only conditional.

But to say that the one has given rise to a second self-subsistent reality by act of creation,

This doctrine, it can be seen, combines some characteristics of pantheistic monism with some of dualism. Like pantheism, it affirms that there is one absolute and self-existent reality, and that this absolute reality existed from all eternity concentrated in its own self-consciousness, without having or needing any world of things either within or external to itself—a self-conscious infinite without any corresponding finite, an absolute without any relative, God without any world. This is evidently the abstract unity of pantheism, considered as a personal and self-conscious being. But this *acosmic* phase in the life of the eternal mind is followed by a dualistic phase. This personal absolute, at a certain point in its external self-sufficient being, intelligently willed into existence, out of nothing, a world of finite things, minds and energies ; gave them plan and co-ordination ; and set them working as a new independent self-subsistent reality, not evolved out of itself (constituted out of its own energy), but created out of nothing, and for the time being independent of itself.

So that there are now two independent realities, viz., the primordial and self-existent substance,

And the world of created

Thus God created the atoms of matter, and invested them with their attributes of resistance and

motion, and left them to operate according to their attributes (*i. e.* to the mechanical laws imposed on them). He creates also finite minds, and endows them with self-determination, and gives them absolutely free will, to work out their destinies independently. Hence the subsequent history of the world, with all its vicissitudes and catastrophes, can be accounted for by the independent working of the physical forces originally implanted in the world-substance (spoken of as *second* causes), and the free wills of finite souls, working outside and independent of, and sometimes contrary to, the will of God himself. The world, therefore, is like a piece of mechanism which an artificer constructs and sets going and then leaves to itself, merely watching its going from the outside—only that the human artificer uses materials supplied to him by nature, whereas the “divine artificer” called the materials into existence out of nothing by an act of absolute creation.

How then, it may be asked, does this dualism of infinite and finite, absolute and relative, God and world, affect the question of the infinity, omnipotence and omniscience of God? Will not finite wills and forces resist and thereby limit the power and knowledge of God, and make God to be finite? To avoid this we must assume either (1) that finite things can exist outside and independent of the infinite *without* limiting it, or (2) that the infinite power can voluntarily *limit itself* so as to leave room for finite things outside, and possibly opposed to itself. Such self-imposed limitation, it may be said, is consistent with real infinitude.

This view, therefore agrees at the same time with dualistic pluralism in this, that it assumes two independent realities as now existent; but agrees with monism nevertheless, in affirming that only one

substances,  
viz. matter  
and finite  
minds, whose  
existence  
though real,  
is only  
conditional.

How this  
doctrine of  
two indepen-  
dent realities  
can be  
reconciled  
with the  
infinitude  
of God ;

How it is  
related to  
pantheism  
and plura-  
lism ;

of them is self-existent, the other being originally, derived and conditioned, and independent only by sufferance. It agrees at the same time with materialistic pluralism in giving self-subsistence to matter and its laws; but differs in making their self-subsistence to be conferred and conditioned, *vis.*, by the creative power of God, who remains an abstract one—a one in abstraction from all plurality.

And the danger of relapsing from this doctrine into materialism.

This theory of the world gives the view of God commonly known as *deism*. It has also been called *abstract theism*, because, while affirming the personality of God, it makes the world to be unnecessary to the life of God (*deism*), and God to have existence in abstraction from any world.

The chief objections to this way of thinking are these: (a) If God existed from all pre-eternity without a world, it is difficult to understand why He became active and creative at a particular point. What need had God for a world at this point? Why did he not continue wrapt up in his own self-sufficient unity for all post-eternity? (b) And if we could thus conceive of the world of things as existing independently of God's power even for a period of time (from creation onwards), we might as well conceive it as so existing from all eternity, and therefore as self-existent. We should thus be led back to dualism making God to be essentially a finite being; or to materialistic pluralism, making God to be superfluous altogether. The third view is that of—

3. It leaves it possible to say that absolute, and relative, infinite and absolute have no real existence apart from each other:

3. *Concrete monism*.—It can be seen that the above theories of the world all turn upon the relation of the one and the many, the infinite and the finite, the absolute and the relative, the unconditioned and the conditioned. How is it possible that the world can be a collection of many things, and at the same time be one world? It seems that we must either abolish the many and admit only the one (*pantheism*), or abolish the one and leave only the many (*pluralism*). Pantheism solves the problem by practically denying the reality of finite things, making them to be only unreal appearances, thus abolishing the world. Abstract

theism gets over the difficulty by supposing either that finite things have existence outside and alongside of the infinite without limiting it ; or that the infinite, as personal God, voluntarily limits and makes himself to be finite, in order to leave room outside of himself for infinite things—creation consisting in this voluntary self-limitation of God—thus making the existence of a world to be temporary and conditional.

Are we limited to these extremes of pluralism and pantheism ?

But we are not limited to these extremes of pluralism and pantheism. No. It is possible to conceive infinite and finite, absolute and relative, the one and the many, not as mutually exclusive (as assumed by these hypotheses), but as correlative to each other, so that the two together constitute one concrete reality. Thus we may suppose that the ultimate one (as abstract infinite) evolves inexhaustibly from within itself the plurality of the world ; and at the same time gives relation and co-ordination to this plurality of things and minds, and thereby retains them all within its own all-comprehensive unity, as factors of one unitary system, contributory to one ultimate end (the concrete infinite) ; and that it is by this evolution and co-ordination of the many that it raises itself from being abstract power or potentiality into being concrete self-conscious reality. In this way, the many will be understood as factors in the life of the absolute and unlimited one ; and every individual will have subordinate reality of its own by sharing in the life and freedom of the whole.

No, it is

that each exists in and through the other :

That creation is a process by which the absolute power makes itself to be concrete reality by evolving a world of finite and relative beings,

Thus we must conceive the infinite as *being*. But merely abstract *being*, or being that is not the being of anything in particular (the abstract unity of pantheism), would be equivalent to nothing.



So that God lives in the world, and the world of finite things exist as the materials of the life and thought of God.

We must therefore conceive being to be the energy of *producing* something. In other words, infinite being must be an inexhaustible process of production, and its product must be the world of things. These are *many* and *relative*, because they are what they are by their relation to one another and to the power which evolves them ; and yet are within the *one* because they are sustained by *that* same power, and co-ordinated together as factors of one system, and as means to one common end.

Hence the infinite lives in and through the finite the absolute in the relative.

Thus understood, the world of finite and relative things will have no existence apart from the absolute power which evolves them. And the absolute will not have any existence apart from the finite, because it is in and through the world of things that the absolute makes itself, from being abstract power which is nothing in particular, into being concrete living reality ; and things exist only as the materials of the absolute life. But the process of creation or evolution thus produced cannot be exhausted in time. For time is the addition of finite units one to another, and no number of finites can make up an infinite. And further, the exhaustion of the process would mean the cessation of reality, and a lapse into abstract being, which would be equivalent to nothing. Hence we must understand the infinite as *realising* itself (making itself to be concrete reality as distinguished from abstract potentiality) in and through the finite—the absolute, as giving itself concrete existence in the world of relative things.

The absolute one will thus be conceived as making itself concrete by evolving the many from within itself ; and at the same time co-ordinating the many as factors of its own conscious life. The

many, therefore, will have relative reality as factors in the concrete life of the one absolute reality.

This view of the relation of the one and the many will lead to a different conception of God from either of the above. God will be absolute and unlimited. But the absolute and unlimited, merely as such, is but abstract potentiality. Yet God is concrete self-conscious reality. How, then, can God be the absolute, and be self-conscious personality at the same time. Only in this way: we must suppose that the absolute power gives concrete reality and life to itself by evolving from within itself (its own inexhaustible power) a world of things, and thereby becoming aware of itself as the agent which evolves the world of things, and the subject which thinks, designs and co-ordinates them as the materials of its own consciousness; and that the evolution of the world is the means by which it raises itself from being abstract power into being concrete, self-conscious life and absolute spirit. Thus understood, the absolute is essentially life, subject, reason, God; and the world is the concrete expression of its essential nature.

And in and through them, raises itself into concrete being for self which is absolute reality

This view of God, then, will differ from deism in this, that (1) it supposes a vital connection between God and the world which deism denies while, at the same time, (2) it both exhibits the *necessary existence* of God, and (3) explains his *infinity* and *absoluteness* in a way consistent with the reality of finite things. It will differ from pantheism in this, that (a) it gives relative reality to the world of things, making finite things and minds to be the materials, so to speak, of the conscious life of God; and (b) at the same time makes God to be transcendent above the world as much as immanent in it. It makes God transcendent because, according to it, (1) the world is means to which God is end; and (2) God is not exhausted in and co-extensive with the world, in the sense of being but the sum-total of finite things, because no sum-total of finite things can exhaust the infinite: and (3) God is the subject to which the world is object, and therefore thinks it without being identical with it. It is not pantheism (God is all), but *panentheism* (all are in God).

This theory will lead to a view of God different from conditional dualism,

And from abstract monism.

And may be called panentheism.

But it is possible to think of two self-existent realities, each limiting the other ;

And if one of these be conceived as God the other will be conceived as matter,

Resisting God and making the world to be imperfect,

And thereby to be a process which is never completed.

**B. Dualism.**—The above hypotheses agree in affirming one self-existent reality. But certain aspects of the world as manifested in experience—its apparent imperfection and the prevalence of evil—have led many to think that the world is best explained by supposing two self-existent substances and powers, of opposite nature, each resisting the other. One must be conceived as conscious, rational and good, striving to evolve a world which will also be perfectly good. This will be God. But nothing can be made out of nothing ; therefore there must be self-existent material outside of God for God to operate upon (as the potter can produce nothing without his clay). This self-existent material must be conceived as separated by the “whole diameter of being” from the other self-existent principle, *vis.*, God. It must be entirely without form or quality of its own. Plato spoke of it as the “non-existent,” because it is not anything in particular. Nevertheless, though it is by itself nothing in particular, it is the antecedent condition of everything in the world of concrete nature ; and must be conceived as having some kind of plasticity in virtue of which it can be moulded into concrete form. Over against this formless substance, then, there is the divine mind with its idea of a perfect world ; and the divine will strives to impose its idea upon the formless material—gives to it form and quality, and thereby moulds it into things,—and will build up the things into an organized world of suns, planets and living creatures. But this self-existent substance, though described as without form and quality, must nevertheless have the power of resistance, and must resist the transforming power of the divine idea. It is essentially what we call matter. The resistance, of matter then, is

what makes the world to be imperfect and incomplete ; the divine idea can never be fully realised, and therefore the process goes on eternally. ' God is *demiurgus* or 'artificer' of the world, but his work can never be finished.

This view has been worked out with greatest logical exactitude (though not without contradictions) by Plato and Aristotle. It may not, however, be so different from monism as at first appears. For why should there be two self-existent principles? It may be because each is the logical supplement of the other. They may be separated from each other by the "whole diameter of being" merely in the sense of being the opposite poles of the same ultimate reality. But this is equivalent to saying that each is necessary as the correlative of the other, and that both are therefore co-ordinate factors of one concrete reality—which is monism.

Yet dualism tacitly assumes an ultimate unity behind its two principles.

**C. Pluralism.**—Dualism assumes two absolute self-existent principles, *vis.*, spirit and matter—God who gives form to the world, and the material out of which he forms the world. But it is possible to go farther than this, and say that there are not merely two, but many self-existent realities. For why should there be only two? If there can be two, why not many? or even an infinite number? This is *pluralism*. It differs from monism in this that instead of one absolute, it assumes an infinity of absolutes. It appears in two forms—in the materialistic atomism of Democritus and Gassendi, and in the spiritualistic atomism of Leibnitz and Herbart.

But it is possible to go farther than this, and assume many, or even an infinity of self-existent entities.

**1. Materialistic atomism.**—Democritus suggested the hypothesis that divisible things are built up of elementary indivisible particles which he called atoms. Modern chemistry, finding that all complex substances are made up of simpler ones combined in certain constant proportions, found that this constancy of proportions is best explained by supposing that there are a certain number of ulti-

Thus materialism assumes an infinity of self-existent atoms,

As well as  
self-existent  
space and  
motion ;

mate and unresolvable substances, each composed of unchangeable and indestructible particles corresponding to the atoms of Democritus. On this hypothesis of atoms the materialistic metaphysic has been based. Thus, to explain the world, we may assume the self-existence of empty space as a thing by itself. And we may assume an infinite number of self-existent atoms, distributed at random through space. And we may suppose that these are endowed with self-existent attributes of motion, attraction and repulsion. Then, from the fortuitous combinations and recombinations of these in infinite time and space, we can explain, it is assumed, all things and qualities of things, and all the attributes of life and mind.

Thus materialism dispenses with all theory of God as creating, evolving, co-ordinating principle. It is easy to see, however, that materialism is a metaphysic in which everything is assumed and nothing explained.

While some  
have assumed  
a plurality or  
infinity of  
self-existent  
spiritual  
units,

2. *Spiritualistic atomism.*—We may suppose that substance is composed of indivisible units, but man understand them in a sense different from the atoms of materialism. For we know these material atoms, not directly, but only by inference of our own reason,—representing them as concrete things by constructive power of imagination. And the only indivisible reality, that we really know directly, is our own spiritual self. And we are conscious of our own self as a single indivisible and permanent unit, aware of itself and freely regulating its own activities. The natural conclusion, therefore, is that all reality consists indeed of indivisible units, but that these units are essentially of the same nature as our own souls. We cannot, indeed, suppose that they are all *actually* self-conscious souls like our own ; but we must assume that they are all

Or subcon-  
scious souls,

*potentially* such, and capable of developing into such when they come into relations favourable to such development. Accordingly Leibnitz and Herbart have tried to determine the conditions under which the elementary 'monads' or 'reals' which build up the world, develop into conscious souls such as ours,—each reflecting, in its internal self-consciousness, the changing states and relations of all the rest, and thus becoming indirectly conscious of the external world as reflected in its own internal states.

Each capable of developing into self-conscious mind.

One difficulty of this, as of all pluralism, is to explain how this plurality of units, originally independent and unconnected, came together so as to influence one another, and build themselves up into an organized cosmos. The origin, development and unity of the world of correlated things is the highest problem of philosophy, but it is just the one that pluralism avoids.

But spiritual pluralism, as well as material, is surrounded with difficulties,

Another difficulty of consistent pluralism consists in this: if each atom or monad were absolutely free and independent of all others, then each of them, being unlimited by anything beyond itself, and having all its power within itself, would be itself an absolute and infinite reality—there would be as many absolutes as there are monads. Each atom would be a separate and independent world. Each spiritual monad would be a God having a world of thought within itself. And none of these worlds or Gods would be affected by, or have any knowledge of any other. Supposing that we live within such an atom-world or monad-world, this world would be the absolute and infinite to us—we should have no concern with, nor knowledge of any other. Leibnitz seems to have thought of this when he described the finite monads making up the world as emanations from a single world-monad or infinite God, like rays from the sun, or 'fulgurations' from the cloud. This, however, is only a return to monism by another way.

And tends to fall back into some form of dualism or monism.

## XIX.

### § 64.

#### *The idea of God in its various forms.*

The various words for God, and their several meanings.

**General statement.**—The above is a general statement of the different hypotheses regarding the world as a whole, indicating at the same time the different conceptions of God to which they seem to lead. But these different conceptions require to be considered more closely. The words *god* (the good, or possibly the active, energizing one), *deus* and *deva* (the bright, shining, heavenly one), *theos* (the breathing and living one), and *el* or *allah* (the mighty one), have been used to denote a conscious being or beings higher than men, on whom the existence, fortune and destiny of men depend, and to whom, therefore, men are responsible and owe homage and obedience. The idea, however, has passed through different stages of development, and assumed different forms. But the result generally accepted, may be freely stated thus :—

General conception of God now commonly accepted—

God is to be understood as a self-existent supreme personal power, which has consciously and purposively evolved the multiplicity of finite things constituting the world ; has not only given them their existence and properties, but has assigned to each a function to perform in the plan of the whole ; and has so designed, co-ordinated and adapted them all that the functions of the lower and simpler shall be subservient to those of the higher ; and all shall co-operate together according to a universal plan, as means for the realisation

of a universal end or good,—present to the supreme mind from the beginning in the form of idea.

Such belief in some form or other is virtually universal. It must therefore have its root in human nature. What then is its root? How does it arise? It is clear that it springs out of the *feeling of dependence* which rises in all minds unavoidably, *viz.*, of dependence on other powers higher than themselves. This feeling

Origin of the idea of God.

(a) Prompts men first on the *intellectual* side of their nature, and sets them thinking about the powers on which they feel themselves dependent. They see that they are dependent first on their fellow men, but they see also that they and their fellow men are dependent on powers higher than men—on earth, water, air, light, sun and moon, and the forces working in them. Primitive men think of these forces of nature as, in some sense, living and thinking beings, like themselves; and therefore, feeling their own dependence on them, seek to win their favour by prayers and offerings (polytheistic religion). But men at last come to understand that these forces of nature are themselves subject to a higher power, and thus arrive at last at the idea of a single absolute power above space and time, and at a religion of the absolute (monotheism). This then is one way of arriving at the idea of God, *viz.*, by thinking.

It is forced on the mind both by thought and reasoning,

(b) But the feeling of dependence affects men on the *active* side of our nature also. Life is action, and every action of a man *affects*, for better or worse, beings other than himself. Hence these other beings are interested in his actions, and punish or reward him, and he feels himself responsible to them for what he does. But it is not only his fellow men that are affected by his actions; his actions act and react even on the forces of nature, and therefore on

And by the feeling of responsibility for action.



And the idea of God rises from polytheistic into monotheistic.

the living powers which seem to work in nature. Therefore men, believing in such living powers of nature, must believe themselves responsible to them also, and will seek to avert their anger and win their favour by prayers and offerings. Such is polytheistic religion. But when men come to see the unity of nature, they begin to feel that their actions either harmonize with and promote the harmony of the whole, or tend to opposition and discord, and are therefore in conformity with, or opposition to the will operating in the whole—the will of the one supreme God—and thus come to see that responsibility for conduct goes back ultimately to this highest power. Hence monotheistic religion. Thus there is another way of arriving at the idea of God, *viz.*, by the feeling of responsibility.

Theism.

Thus men are prompted to the theistic belief by both the intellectual and moral sides of their nature. And *theism*, or belief in God (*theos*) assumes that the world is, or at least tends to become more and more, a unitary system, of which all the parts are evolved and co-ordinated as means to end; and that its elements are therefore subject to the control of a mental and rational power working consciously and purposively.

But this conception of God admits of different hypotheses as to the relation between God and the world,

The above general statement, however, leaves many questions unsettled. Thus the idea here expressed is in several points indefinite, as, *e.g.*, whether God is absolute and infinite, or finite and limited. The principal forms assumed by the idea of God may be considered in connection with the above theories of the world, *viz.*, *pluralism*, *dualism*, *monism*, each of which leads to a different conclusion with regard to God. Thus, those who try to explain the world by assuming a multiplicity of self-existent substances and powers coming together and interacting with one another, will, if they admit any God at all, make God or the Gods to be finite, and probably to be products of development (polytheism). Those also who assume two self-existent powers contending together and producing the world by their interaction, will make God to be a finite being. Those who assume

Some making God to be limited by a world outside himself,

a single self-existent substance or power, and conceive the world as the self-development and product of that absolute one, will make God to be the one absolute and infinite reality, and the world of finite things to be factors within the infinite life of God. We may therefore consider further the various conceptions of God as they have risen out of, or in connection with these different theories of the world. Hence

And some making him to be absolute and infinite, containing the world within himself.

## § 65.

### *A. God as finite.*

Some conceptions make God to be finite, relative and limited. This is done in different ways by the polytheistic and dualistic conceptions—the former making God or the gods to be products of nature; the latter making God to be indeed self-existent, but to be limited by another self-existent principle opposed to himself. Hence, conceptions of God as finite will come under the following heads—

Thus some make God to be, like man, a finite being limited by other beings outside of himself.

**I. Pluralistic conceptions of God: polytheism.**—In ordinary perception things appear to be separate and unconnected with one another. Even things which at first seem continuous and solid—the stone or tree—are found to be capable of being broken up, and disintegrated into independent particles. Thus the pluralistic conception of things would seem to be the most primitive; and hence, when primitive minds advanced so far as to think of order in nature, and of mental powers as presiding over and regulating the processes and products of nature, they naturally thought of these processes and products as so many departments existing apart from one another, and thought, therefore, of their controlling mental powers, also, as separate and independent of one another. Hence, being still unable to rise to the

Thus pluralistic metaphysic leads to the idea of many gods,

Each being a product of the forces of nature, and therefore limited by nature, and by other gods produced in the same way,

idea of the world as a unitary system and whole, they thought of the various processes and departments of nature as controlled by a *multiplicity* of mental beings who were finite and relative—which is *polytheism*. These they might have thought of as self-existent beings living from all eternity; but usually they thought of them as having been born from nature like other finite beings—e. g. the gods of the Norsemen and the Greeks.

And all more or less analogous to human beings (anthropomorphism)

Much study has been devoted to the question, how men first came to think of mental powers as presiding over the forces of nature. This much may be regarded as certain, that the belief originated in the analogy of human life and organism. As the human body with its regulated movements is to the conscious life which evolves, controls, and manifests itself in it, so are the various products and departments of nature to similar vital powers by which they are controlled and regulated. But belief regarding these powers passed through various phases of development. Thus—

But the polytheistic conception passed through stages of development,

From primitive animism which regarded all moving things as alive, without making any distinction of body and soul,

Called also hylozoism,

1. The most primitive form of belief seems to have been that life and feeling is a property of the organism as such, and that the organism freely regulates its own operations by means of the feeling and intelligence inherent in it—no distinction being made at first between life and soul. Hence wherever there was an appearance of regulated motion, of unity and order in nature, the conclusion was drawn that there was also feeling and intelligence there. Thus all departments of nature seemed to be alive with various degrees of conscious life and intelligence; the sun and planets, the sea, mountain, tree, spring, were conceived as each feeling and thinking, and designing and regulating its own states and activities, as a living being.

This phase of thought has been spoken of as *animism* (that all things manifesting orderly and

regulated motion, are animated like the human body). It corresponds to what in metaphysic has been called *hylozoism* (that all substance is alive). Still, these living and feeling powers of nature could hardly be conceived as personal gods in the human sense of personality; and therefore they were not necessarily conceived as influenced by reasons and motives like personal beings. Therefore religious worship took mainly the form of *magical* rites and ceremonies, supposed to influence the higher powers in some mysterious way, but having no connection with either physical or moral causation as now understood. Such primitive belief in magical influences can be traced in the ceremonies of most religions, even at the present day.

2. But in course of time the idea of *life* developed into that of *soul* or *spirit*—a substantial reality existing in, but nevertheless independent of the body, and capable of existing apart from it. This conception of soul, then, led men to conceive the ruling powers of nature as spiritual beings, residing in the things which they control, but nevertheless distinct in substance, and independent of them. The tree had now its personal dryad; the sea, its Neptune and Triton; the sun, its Phœbus Apollo, etc. In this way the gods became distinctly personal beings, and were conceived as assuming human forms, though of substance finer than human, and as having thoughts, passions and ambitions analogous to those of men, and as influenced therefore by similar motives. The forms of worship underwent corresponding change, and took the form of means for influencing the gods by such motives as influence human beings—prayer, praise, offerings, and the like.

Through spiritism, or belief in mental beings without material bodies,

Though capable of assuming human forms, and with human feelings and passions,

Thus primitive animism grew into *spiritism*, and thereby into polytheism of the anthropomorphic kind. But increasing knowledge of nature revealed more and more the unity of plan in nature; and this led to a subordination of lower gods to higher ones, and finally, of all to one supreme ruler of heaven and earth, and thus polytheism gave way more and more to *monotheism*.

Up to monarchical monotheism, recognising one as supreme above all others

And the thought of the unity of God led soon to the thought of the unity of the cosmos—of the world as the product of a single absolute power. Thus monotheism passed from its at first merely monarchical form—the idea of God as a supreme sovereign reigning over many minor gods—over into the monistic conception of God as the absolute. Thus pluralistic conceptions of God pass over into the monistic one.

## 66.

Dualistic metaphysic also leads to a conception of God as finite and resisted by something outside of himself

**II. Dualistic conceptions of God.**—Dualism is intermediate between monism and pluralism, and probably originated in the difficulty under which monism seems to labour, of explaining the imperfections and evils which are seen to abound in the world. These seem to many to be inconsistent with the monistic idea of a single all-powerful author of the world. To many, the easiest explanation seems to be that evil results from the struggle of two opposite powers, each strong enough to defeat the tendency of the other. We must therefore assume two self-existent principles, the one tending towards good, and the other resisting that tendency; and explain the world as resulting from the conflict between them—the good principle striving to produce a perfect world in conformity with its own nature, and the evil one resisting and defeating the efforts of the good. Under this head we may distinguish.

Which is, commonly conceived as an evil principle resisting God as the good.

One form of dualism has made both principles to be personal,

1. *Ditheism*, or theory of two rival divine principles. When the primitive tendency to animistic personification was still strong, the two opposing principles were both conceived as personal, and therefore as to rival gods with opposite tendencies. Thus the early Persians conceived the good power as Ahura Mazda, the beneficent deity who strives to make a world

which will be perfectly good like himself ; and the evil one as Ahriman, who plots to defeat the benevolent designs of the good one, and make them lead to evil consequences. Where the one sows life-supporting corn, so to speak, the other comes in the dark and sows noxious weeds which stifle the growth of the former. The one plants in men's minds the feelings of benevolence, peace and love ; the other introduces selfishness, jealousy and malice. Thus there seemed to be in nature not only *teleology* or intentional adaptation to good, but also *dysteleology*, or intentional adaptation to evil. It is as if there were two gods, both self-existent, but neither of them infinite, because each limits the power and defeats the work of the other.

This theory of two rival divine personalities led to the mythological fancies of the ancient Gnostics and Manicheans ; but gave way at last to a less fantastic conception, *viz.*,

2. That form of *monotheism* which makes God to be single but *finite* ; or supposes that, of the two self-existent principles only one is personal and the other impersonal—God and matter. In other words, the tendency of more advanced thought was to restrict personality to one of the rival powers, and to conceive a single god of unlimited goodness, but limited in power by another principle outside of himself, and self-existent like himself, but impersonal. For the evidences of design in nature pointed to a beneficent designing power, a personal architect of the world. But the presence of imperfection and evil everywhere in nature and man, seemed to show that the designing power is unable to carry out completely the ends at which he aims. This can be explained by supposing that, like a human artificer, he has to work upon external materials which resist him ; and that he is unable

And thus assumed two Gods, a good one and an evil one,

Contending with each other,

Explaining in this way the evil in the world.

But the commonest form recognises only one of them as personal,

Making the self-existent personal principle to be God,

And the im-  
personal one  
to be matter,

to overcome wholly the resistance and imperfection of his materials. The clockmaker cannot make a perfect clock because the metals which he has to use, and the physical laws inherent in them, will not subject themselves wholly to his purposes. It must be for a similar reason that the "divine artificer" fails to produce a planet free from storms and earthquakes, and an organism free from disease and decay. For even God, it was supposed, cannot create a world out of nothing; nor can he create it out of himself. There must be self-existent materials, therefore, outside God upon which God operates, and which he strives to build up into a perfect cosmos according to his own design, but which resist his formative power, and make the world, though perfect in design, to be imperfect in execution. Thus God, though infinite in goodness, is finite in power.

And con-  
ceiving God  
as a divine  
artificer,

Who con-  
structs the  
world out of  
materials  
supplied to  
him;

This view of God as finite and limited in power seems often to be tacitly or unwittingly assumed along with the common deistic conception of God. For this theory seems, at first thought, to be better adapted than monistic deism to explain the world's apparent independence of God, its power of resisting God's designs, and its apparent imperfection. This it appears to do by its ascribing self-existence and resisting power to the substance of the world, and by making God to be a finite being, unable wholly to overcome the resistance of matter. This many think to be the best way of explaining physical and moral evil. God does not make storms, earthquakes, plagues, and wars, but he is unable wholly to prevent them.

But the  
materials  
resist him,  
and he

This view of a personal God resisted by im-  
personal matter (hylé, formless substance;) was  
regarded with favour even by J. S. Mill, as the

true conclusion to be drawn from the teleological argument ; and is probably still entertained by many, perhaps in most cases unconsciously. And many minds probably waver between this thorough-going dualism, and the semi-dualistic view of creation out of nothing.

cannot  
wholly  
overcome  
their resis-  
tance ;

But absolute dualism is open to many objections. Why should there be just two self-existent principles and no more ? (if there is not some ultimate and necessary connection between them, in which case, however, they would not be absolutely two). And if there be two absolutely independent substances, it is impossible to understand how they could have come into interaction with each other so that the one could act upon the other—God on matter and matter on God. We can understand interaction only between correlative members of the same ultimate reality, included within the unity of one system. Hence,—

Whence the  
imperfection  
and evil of  
the world,

### § 67.

#### *B. God as absolute.*

#### **III. Monistic Conception of God : Theism—**

Hence the trend of thought is towards the idea of a single absolute and self-subsistent principle which is infinite in the sense of being inexhaustible power ; and towards the view that all finite things are products of the self-evolution of such an absolute principle, and therefore correlated factors of one universal system and plan, and that the world therefore is a unity.

But monistic  
metaphysic  
makes God to  
be absolute,  
and this is  
now the  
common  
view ;

Indeed ever since the time of Aristotle theoretical philosophy, on merely logical grounds, has been tending more and more towards such a conception of the correlativity and inter-dependence of all finite things, as products of one absolute power and factors of one all-comprehensive system. But more recently this at first speculative conclusion has been confirmed more and more by experimental investigation, which has brought out more

For science  
tends to  
shew more  
and more the  
connection  
and inter-  
dependence  
of all things,



and more clearly the inter-dependence of finite things, and their subjection to universal law and system, as parts of one universal whole. And this monistic tendency is strengthened by moral considerations, because a pluralistic and polytheistic world would be a world of jealousy and strife.

And this is possible only if all things are the working out of a single power which is present in them all.

And it follows that this power must be unlimited by anything beyond itself,

And must be complete in itself, and for itself,

And therefore aware of itself.

And must therefore be

Thus both philosophy and science are compelled to assume one absolute and unconditioned reality as the ultimate ground of the existence, co-ordination and systematic unity of the world of conditioned things ; in other words, to assume reality which is absolutely real because containing the ground of its existence within itself, and as complete, sufficient and perfect in itself. For to say that the world is a unitary system of correlated things, complete, and sufficient in itself as a whole, is equivalent to assuming that it is the product of a single self-sufficient power which evolves things from within itself, and in so doing gives them their correlation, place and purpose as factors of the system.

And from the nature of the absolute as being complete and sufficient for itself, it follows.

(a) that it is inexhaustible potentiality, not limited nor resisted by any other reality outside of itself, but free to evolve itself with inexhaustible power without limit. In other words, it must be conceived as *infinite*.

And (b) that it exists *for* itself and *for* its own sake, and is therefore *aware of itself* and of its own activities and products. In other words, it must be conceived as universal self-awareness or self-consciousness—a self-conscious subject evolving the object-materials of its consciousness from within itself (the power latent in itself as its own essence.)

And (c) from its being absolute subject complete in itself and aware of itself, it follows that it contains

all that we mean by *personality*—controlling its own activity for a purpose of its own, and distinguishing itself (not indeed from other things outside and independent of itself as finite persons do), but from its own activities and products,—from the evolved contents and materials of its own life and consciousness.

a personal being.

We are led, therefore, to the idea of the absolute as self-conscious, self-distinguishing, self-controlling power, evolving and co-ordinating all finite things within itself, as means to end, viz. to the complete realisation of its own infinite nature. But this is the highest conception that can be formed of God. We must conclude, therefore, that God in the highest sense is identical with the absolute and infinite reality. Hence as to the relation of

Hence we must conclude that God is identical with ultimate and absolute reality.

#### § 68.

**God and finite things.**—It follows, then, that absolute and relative, God and finite things, do not exist outside and independent of each other (as finite things exist outside of one another in space); but that finite things and minds exist as factors in the life of the absolute, *i.e.*, of God. And God will differ from the things which constitute the world in this way; things are—

Hence contrast between things and God.

(a) *Finite*, because they exclude, and limit, and are therefore outside of one another in space and time.

Things are Finite,

(b) *Relative* and *conditioned*, because they depend for their existence and attributes on, and are made to be what they are by, things other than themselves—directly by the other finite things in interaction with which they exist, and ultimately by the absolute from which all finite things derive their existence and relation; and

Conditioned.

Imperfect,

(c) *Imperfect*, because, being members of a whole, working in interaction with other members, and existing for a purpose and function as factors of a higher system, none of them can be complete or self-sufficient, nor therefore perfect in itself. And as only that is absolutely real which is complete and sufficient in itself, finite things, for this reason also, can be individually

And only relatively real.

(d) *Real* only in a relative sense : their reality consists only in their being needed to fulfil a function, and supply a want in the system as a whole. And this incompleteness must extend to their self-consciousness, personality and freedom ; as only an absolute can be exhaustively self-conscious, and absolutely free. A world of finite things is indeed *necessary* as the complement and concrete filling up of the absolute, and is therefore *real*, because without it the absolute itself would be but an empty abstraction ; and therefore the individual finite things which make up the world are *real* ; but because they are finite, the reality of individuals can only be relative and dependent, not absolute.

God is Absolute,

God on the contrary will be—

(a) *Unconditioned*, as having all the grounds and conditions of his reality within himself, and being therefore independent of any condition lying beyond himself ;

Unlimited or infinite,

(b) *Infinite*, in the sense of being unlimited by any thing outside of his own nature, and inexhaustible in his activity from within—his essence being unlimited power of self-realisation.

Not a mere sum-total of finite things.

We are apt to think of the infinite as composed of an infinite number of finite things added together ; and as we can go on imagining finite things, and adding them together as long as we

like, without ever getting beyond the finite, we think that the infinite as such is unthinkable, or that it is merely a negative idea viz. of what is not finite. If it were so, and is therefore *real* because without it the absolute itself would be but an empty abstraction; and the individual things which make up the world are real; but because then God would be unthinkable, or would be merely a negative idea. This supposed infinite by addition, however, is merely the "false infinite." An infinite which is merely a sum of finite things is a contradiction—the essence of infinity is just this, that it cannot exhaust itself in any sum of finite things. The real infinite is the power which makes all things flow out of itself, and which can never exhaust itself in, nor be identical with any sum of finite things. It is, to be sure, an 'abstract' idea, but instead of being negative, it is the most truly positive of all ideas. The idea of a finite thing on the contrary is as much negative as positive,—such a thing is *this*, because it is not *that*,—its "determination is negation." What is positive in it, is its root in the absolute, the energy by which it preserves itself as a factor of the whole; but we understand it not so much by what it is positively, as by what it is not, *i.e.*, its differences from other finite things. On the contrary the idea of the absolute is the most positive of all ideas as being the ground out of which all relative things spring, and as that in relation to which we understand finite things as correlated factors of a whole. And besides being unconditioned, an infinite God will also be—

Meaning of  
infinite,

Not negative

But the most  
positive of  
all ideas.

(c) *Personal and self-conscious*, because the absolute is complete and perfect in itself, and exists wholly *to* and *for* itself, and contains within itself all that is needed for its completeness. But to exist *for* self, is to be aware of self. What is not self-conscious is not complete in itself, and exists not for itself, but for something else that *is* self-conscious, and as material or instrument for what *is* self-conscious (as body is for soul). But the absolute exists wholly for itself, and has all the

And personal,

Being con-  
scious of the  
contents of  
his own life.

materials of self-awareness within itself, viz. in its own activities and the products which it evolves, and the purpose for which it evolves them. And, because it is absolute, its purpose can be nothing but the conscious realisation of its own inexhaustible infinity. Hence we are justified in regarding God as not only absolute, but as

But universal consciousness must be different in kind from finite consciousness—

**Universal consciousness.**—The 'self-awareness' which we here ascribe to the absolute, must include, under and within it, the conscious feelings and thoughts of finite beings ; but, at the same time, it must itself altogether transcend and differ in kind from what we know as consciousness in our own mental life. In other words, it must include under it, but at the same time rise above, the sum-total of finite consciousnesses. For we are finite beings ; our consciousness of ourselves is a consciousness of ourselves as reacting on and resisting the action of other finite things on the same level with ourselves (this correlative action and reaction entering into our consciousness as sensation and feeling in general) ; and it is in and through this fusion of active and passive feeling (this feeling of being resisted and of overcoming resistance) that we become aware directly of ourselves, and indirectly of other things. Our cognition therefore is *sense-intuition*, making us aware not only of ourselves, but at the same time of things existing independent of ourselves. But the absolute is not limited and resisted in the same sense by anything outside of itself. Its self-awareness, therefore, must be awareness of its own activity, purpose and products, and therefore of the world of finite things which are its products and of the relations of things to itself and to one another, and not of any resistance from things independent of itself. It includes

Founded not on sense-intuition or feeling of being acted on,

finite beings, and their feelings of mutual resistance, but is at the same time, rising out of these, a higher kind of consciousness, higher than any thing that finite beings can conceive.

For finite things are not outside of the absolute in the same sense in which they are outside of one another. In the absolute "they live, move, and have their being"; and as products of the absolute activity, they are included within the universal self-awareness of the absolute. God's cognition of things, therefore, is not sense-intuition like ours. It has been distinguished as "*intellectual intuition*," i.e. awareness of reality otherwise than in terms of sensation—like what our own awareness of ourselves and the contents of our thought would be, if we existed absolutely, and knew things not as outside of us and resisting us, but as modes and products of our own voluntary activity. We know that such self-awareness must be possible, though we cannot conceive it in the concrete, because we do not experience it in ourselves.

But on intellectual intuition, or awareness of self-originated activity and production ;

Some metaphysicians, however, e.g. Plotinus and Schelling, have maintained that even man may acquire the power of rising above the limitations which produce sense-consciousness, and of becoming directly conscious of himself as a free self-evolving, creative power, identical with, or a function of the absolute ; and many mystical thinkers have claimed the same power. The idea has been a favourite one also with some poets, e.g. Wordsworth and Tennyson. Thus we arrive at—

Though some have thought this possible even in men.

### § 69.

**Concrete monotheism.**—The above doctrine, therefore, claims to be *concrete monotheism*. It makes God to be the absolute, and therefore to be one ; and makes the world of things to be contained within the one as products of its activity and materials of its thought, and to be real as

Thus the absolute is made to be a concrete one, existing for itself, and therefore aware of itself.

factors of its concrete life. It does not make God to be an empty abstract one, by taking away the reality of finite things, as pantheism does ; nor make God and world to be two independent realities existing in abstraction from each other as dualistic theism and, in another way, deistic theism does ; but makes them to be moments of one concrete reality, each of which is real in and through the other.

And the contents of the world, past, present, and future, are co-ordinated together as factors of a whole, subject to the immanent plan and purpose of the whole,

It will follow that all the contents of the world must be correlated to one another as organs in one universal life. Whatever is "real" must be rational, and whatever is rational is (or will become) real. This is equivalent to saying that the world in all its details is teleological ; and the metaphysical belief in the unity of God will find empirical confirmation in the teleological argument (although that argument does not establish his absoluteness and infinity).

But the name which expresses the meaning of the doctrine best is *panentheism* (all things in God) ; because, according to it, all things and minds are *in* God—evolved from, sustained by, and included within the all embracing energy and consciousness of God.

And this view of the world in God is panentheism rather than pantheism.

It differs from pantheism in this, that it neither makes the world of finite things to be unreal in order thereby to make God to be all, nor makes God to be all by making him to be the sum-total of finite things ; but gives to the world of things a necessary, though to individuals only a finite and relative, reality, viz. as the contents of the divine life and thought.

And in this way it makes finite things to have real individual existence of their own—each fulfilling a particular function within the universal organism, and real as its function is real. Things are therefore distinct from one another and distinct too from God or the absolute.

It differs from pluralism in this that finite beings do not possess absolute existence of their own, but derive their existence from God; and that, while they are distinct from God, yet they do not differ from God in the same sense in which they differ from one another. Hence the logic and arithmetic which apply to the relations of finite things among themselves—*e.g.* of marbles to marbles, of pins to pins—do not apply to the relations between finite things and the absolute.

And differs from both pantheism and pluralism.

Here, however, we have to consider the objections which have been made against the above doctrine of a self-conscious absolute, and to which great importance were attached in later 19th century philosophy.

### § 70.

#### *Difficulties urged against monotheism.*

**Objections to monotheism** in its several forms are chiefly from two points of view—

But objections are raised against

*A.* Epistemological objections from the side of the *sceptical* and *agnostic* theory of knowledge founded on relativity, which may reason in either of these ways :—

the theistic conception—

1. That our knowledge of the absolute is made impossible by the very conditions of knowledge. We can know a thing only by looking at it from the outside, and comparing it with other things of the same kind; but there is nothing of the same kind with which we can compare the absolute. Even though it may be admitted that the world is the product of a single absolute power (as monotheism maintains), yet *nothing* can be known regarding the nature of that power—it is from the very nature of the case unknown and unknowable. We may know *that* it is, but we cannot know *what* it is—beyond the

Objections founded on theory of knowledge :

That knowledge of the absolute is inconsistent with the conditions of knowledge ;



merely negative knowledge that it does not possess the attributes characteristic of finite things.

And that consciousness in the absolute is inconsistent with the conditions of consciousness.

2. That the absolute's consciousness of itself also is made impossible by the very conditions of consciousness. Even if it be admitted that the world is the product of a single absolute power, yet regarding that power we can know only *this much*, that it cannot possibly be a personal self-conscious power as held by monotheism—that an absolute consciousness is self-contradictory and impossible. Consciousness is a feeling of being acted on by other things, and of reacting on them. Therefore it is possible only in finite things which limit and resist one another. Hence there can be no consciousness in an infinite and absolute being. Therefore God in the sense of an absolute self-conscious personality is impossible. This, then, leads to the dogmatic denial of God in the monotheistic sense of an absolute person.

And objections founded on experience of the world ; viz.,

*B. Experiential objections from the side of pessimism.*—The monotheistic doctrine assumes that all things are co-ordinated as means to ends, and that the ultimate end is the highest good—in other words, that the world in all its details is rational. But this, it is argued, is only an *à priori* conclusion of reason ; and is not confirmed, but rather refuted, by facts of experience. The evidences of final cause or teleology in the world are partial and deceptive. If things are really adapted as means to ends, the ends are evil as often as good. Teleology is, in too many cases, *dys*-teleology. The amount of evil in the world is too great to be reconciled with the doctrine of a highest good, and of the rationality of the cosmos (adapting all things as means towards a highest good). A universal consciousness, if such a thing

That it is too full of evil and pain to be the product of, or contents of an absolute mind.

could exist at all, would be a consciousness of universal pain ; and not a good to be desired and striven after, but an involuntary result to be overcome. Therefore, if the world-process do really aim at any particular result at all, it cannot be the production and maintenance of a universal consciousness, but rather to reduce to unconsciousness the universal pain. (Hartmann)

Hence we may consider first the objections to monotheism from the side of the

### § 71.

#### *A. Agnostic objections to monotheism.*

*Agnosticism*—the belief that it is impossible to know anything beyond the range of sense-experience—may indeed admit that the world of finite things is the product of a single absolute power, but either holds that that power is, by the nature of the case, unknown and unknowable, or claims only this much of knowledge regarding it, that it cannot possibly be a self-conscious, personal power. Thus it argues—

Objections  
founded on  
theory of  
knowledge :

1. *That we cannot know anything about the absolute*—that the absolute is *unknowable* from the nature of the case, and that, even though a single absolute power could be known to exist, yet nothing whatever could be known regarding its *nature*. Even though its existence were known, its nature would remain unknown and unknowable. Above all, we have no right to affirm that it is a self-conscious personal being such as we assume God to be.

1. That the  
structure of  
our intellect  
and the con-  
ditions of its  
knowing  
things are  
such

The argument here is of a logical and epistemological kind; and proves the absolute to be

That though  
it may be  
possible for

us to know  
the existence  
of an abso-  
lute,

It is not  
possible for  
us to think  
the nature of  
the absolute.

2. That the  
conditions of  
consciousness  
are such that  
an absolute  
consciousness  
is impossible.

For all con-  
sciousness is  
fundamen-  
tally sensa-  
tion.

*unknowable* by showing that knowing it would involve a contradiction ; and does so by appealing to the principle of relativity. For (i) we can perceive a thing, and form a concrete idea of it, only by discriminating it from, and comparing it with other things on the same level with itself ; but, in the case of the absolute, there is nothing outside of itself from which to discriminate, or with which to compare it. And (ii) we can understand a thing only by knowing the antecedent circumstances which have brought it into existence, and the collateral circumstances which limit it, and give it its present form, *i.e.*, by knowing all the conditions and limitations which make it to be what it is ; but the absolute is, by the nature of the case, above all causes, limits and conditions—it is the unconditioned. Therefore to know it would be to “condition the unconditioned”—to bring under conditions and limits that which has no conditions nor limits. And it further argues.

2. *That the absolute cannot know itself.*—An agnostic may admit that this much can be known regarding the absolute, that *it cannot possibly be a self-conscious personal being.*—The argument against the personality of God as absolute, consists in trying to prove that personality and self-consciousness are, by the very nature of the case, restricted to finite and relative beings ; and that the application of such ideas to the absolute involves self-contradiction. Here again, therefore, an appeal is made to the principle of relativity. To feel one's self a person, is to feel one's self distinct from, and opposed to other things on the same level with one's self ; and the consciousness of distinctness rests on a feeling of being acted on by, and reacting against other

things. Self-consciousness, in short, can be nothing but a consciousness of one's self as something resisting and interacting with other things (in accordance with the principle of relativity). Hence a self-conscious person, must necessarily be a finite, relative being, standing in certain relations to other finite beings on the same level with itself. No consciousness of self is possible, therefore, without a limiting, resisting not-self.

But the absolute does not exist by interaction with anything. It has nothing outside of itself from which it can discriminate itself ; and cannot therefore have these experiences of resistance which are necessary as the material of consciousness. Indeed, the essence of all consciousness is sensation, and sensation is the feeling of resisting and reacting upon impressions from the outside. Therefore consciousness and personality are inconsistent with the very nature of the absolute.

The absolute is therefore an unconscious impersonal power which evolves the world of finite things out of itself without being aware of so doing, and therefore without any conscious plan or purpose, *i.e.*, without conscious reason. Nevertheless, the finite products of the absolute, we must suppose, when they attain a certain degree of complexity, and, at the same time, of harmony and unity of structure, become conscious of themselves and of their relations to one another, *i.e.* rise into being finite minds possessing reason. But such self-awareness or self-consciousness is dependent on their relations and interactions as finite conditioned things, and is therefore impossible to the absolute itself.

This argument therefore proves that the absolute cannot *know* ; as the former one proved that it cannot *be known* ; it is both unknowing and unknowable.

The above doctrine, however, leaves it possible to apply to the absolute the theory of *subconscious*

And sensation is feeling of something outside one's self.

But the absolute cannot be acted on by anything outside itself.

If it were, it would not be absolute.

Still this argument leaves it pos-

sible that the world may be the product of reason working sub-consciously.

*ideation* : and say that the evolution of the world is prompted and guided by absolute idea working unconsciously ; that idea as absolute is necessarily unconscious of itself, but becomes conscious of itself partially, and from finite points of view, in finite minds. Hence finite minds will be the absolute idea which evolves the world, becoming conscious of itself finitely from finite points of view (whence also various theories of sub-conscious thought and reason, e.g. those of Strauss, Feuerbach, Hartmann). We have to consider first the above objections from the side of agnosticism.

## § 72.

### *The Agnostic difficulty examined.*

**Analysis of agnostic difficulties :** We have to consider first the objection that we cannot know the absolute, and then the objection that the absolute cannot know itself. Now

This doctrine, however, involves contradictions.

1. The agnostic argument against the possibility of our knowing anything about the absolute, is founded on an application of the principle of the relativity of knowledge. But this application can be shown to involve a paralogism. It assumes that, in order to know the absolute, we must separate it from, and set it side by side with other things in order to compare it with them, and see the difference—as we compare finite things by setting one *here* and another *there*, and turning attention from the one to the other. But there is nothing outside the absolute with which to contrast it. Hence there can be no discrimination of the absolute from other things, and therefore no knowledge.

It assumes that to know the absolute would be to know it by contrast with

Now it is true that we cannot set the absolute on one side and relative things on the other in order to contrast them ; for the absolute contains the world of things, and realises its own

absoluteness by evolving and co-ordinating things, and the world of things have no existence except in the absolute. But the objection founded on this involves a misunderstanding. For in what way is it that we really know the absolute? The notion of the absolute is the logical condition of our knowing finite and relative things as such. To know such things is, in the first place, to know their relations to one another. But their being related to one another means their having definite places, functions, and interactions with one another, as factors of a system or whole within which they have their places and relations; and this whole is equivalent to a power which gives them their existence, and thereby their places and relations within itself. Thus, to understand finite things as related, means to understand them as factors or products of a higher power which makes them to be related, *i. e.* as correlated factors of a whole or system. And this background of evolving and correlating power which gives to things their existence and relations and makes them to be knowable, is itself the absolute. Thus knowledge of the absolute is not really contrary to, but rather required by the principle of relativity. We cannot know things as related to one another without at the same time knowing them as related to what gives them their relations, *i. e.*, the absolute. Hence absolute and relative are related ideas, neither of which is possible without the other. And in knowing the relative, we know the absolute which manifests its power and purpose in relative things, and makes them to be relative.

another  
something  
outside  
itself  
which is  
impossible.

But we  
really know  
it is what  
manifests  
itself in the  
relatives ;

And we  
know abso-  
lute and  
relative each  
in and  
through the  
other.

Indeed, to think of finite things as related without an absolute which gives them their relations, is to think them as being themselves so many differ-

Hence there  
is a double  
contradiction  
in the

agnostic  
criticism.

ent absolutes (pluralism). But in that case, they would have no relations to one another and therefore could not be known at all. Therefore the real logical contradiction lies, not in thinking an absolute, but (1) in pretending to think things as relative without thinking an absolute ground that makes them to be relative; and (2) in pretending that we cannot think the absolute, while we are, all the time, trying to think finite things as so many distinct absolutes. For thinking of things as existing independently of the one absolute is equivalent to thinking of themselves as absolutes.

And we think the absolute not as an abstraction existing apart from the world of relative things, as the agnostic argument assumes we must; but as forming one concrete whole with the world of finite things in which it expresses itself. Absolute apart from relative, and relative apart from absolute, are abstractions having no real existence. Each is, and is thought, in and through the other. This is true relativity; and it is in this way that we form our idea of the absolute.

That the conditions of consciousness are such that a universal consciousness is impossible.

For all consciousness is fundamentally sensation.

And sensation is feeling of something outside one's self.

2. The other agnostic argument, viz, that, against the possibility of the absolute's knowing itself, in other words, against its being an *absolute self-conscious personality*, is founded on another application of the principle of relativity. In the case of the absolute, there are no materials for relativity nor therefore for consciousness—nothing which an absolute principle can distinguish from itself, discriminate and compare. Thus, as consciousness of this kind seems to be so different from human consciousness, many have denied the possibility of absolute consciousness and intellectual intuition. For consciousness is by its very nature a feeling of the limitations and impressions imposed upon us by things outside of ourselves, and is therefore possible only in finite beings acted on by

other things outside of themselves. Therefore an absolute consciousness is impossible. If God be a conscious being, God must be a finite being, a product of nature, limited and affected by other finite things outside of himself, in the same sense as we are limited by finite things outside of us (polytheism).

But the absolute has outside of itself.

But the truth is that, in our own case, what we are directly conscious of is our own self with its states and activities. It is true that, as we are finite beings, these are imposed on us by external things. But it does not follow that this externality of impressions and materials is essential to consciousness. There is nothing to prove that an absolute being, evolving states and activities from within himself, may not be aware of them and of himself as evolving them, and thus have all the materials of consciousness within himself.

But externality of materials not necessary to consciousness

The apparent force of the agnostic argument, therefore, arises from its considering the absolute in the abstract, and treating it as if it were something having concrete existence in itself without any world of relative things in which it makes itself to be concrete, and as if such a concrete world had no existence. But this is a false abstraction. We must regard absolute and relative, infinite and finite, as correlative factors of one concrete reality. And if they are such, it follows that the absolute, as containing the relative within itself, contains thereby within itself all the materials, required for discrimination and conscious personality. In fact, a consciousness of relation of the most perfect kind will include (a) a consciousness of the different things related, and (b) a consciousness of a common power or substance within which they are contained, and which gives them

The absolute has all the materials of consciousness within itself,



their connections or relations, and without which they would not be possible. Now these elements are present to us to some extent in our own voluntary activities and the states dependent on them, and it is from discriminating and comparing our own voluntary activities that we get our understanding of relation.

In the relation of itself to its products, and of its products to one another.

But these elements of relative consciousness are present in greatest perfection in the absolute itself. For in the self-evolution of the absolute we can distinguish two forms of relation (1) the relation of the absolute as self or agent to the activities and products which it evolves ; and (2) the relation of these products to one another, as finite things and factors of a system working for a common end. In these things and relations, therefore, the absolute contains all the materials of relativity, and therefore of self-awareness, within itself, and that in a higher and more perfect way than finite beings do ; and is self-conscious in a more perfect way than finite beings can be.

Misunderstanding underlying agnosticism.

We can see, therefore, that the agnostic argument is founded on the *analogy of the finite human self*. We are ourselves finite beings existing by interaction with other such beings—it is in such action and reaction that our life consists, and it is out of it that our consciousness rises. Our finite consciousness, therefore, depends on relation and interaction with an external not-self. This fact may seem at first to favour the above argument that, where there is no interaction with external things, there can be no consciousness. But, if we consider the matter more closely, we can see that the *immediate* materials of our consciousness are really our own activities and the states and product resulting from them, viz. our feelings and ideas ; we know the external not-self which imposes them (the external world) only indirectly, and as *implied* in that—it is not itself the direct material of our consciousness ; we are directly conscious only of

what we ourselves do and produce—our self-evolved activity and its products—and of ourselves as producing them. And it makes no essential difference to consciousness whether its materials are imposed from without (as our own sensations are), or evolved from within the mind itself (as the thoughts of God are). It follows, indeed, from *our* nature as finite and relative beings, that the materials of *our* consciousness—our states and activities and their relations—are forced upon us by other finite and relative things external to ourselves. But this foreign origin, we can see, is not necessary to the nature of consciousness as such. What is necessary is merely the materials and their relations; and whether they are imposed from without as in our case, or evolved from within as in the case of the absolute, makes no essential difference to the possibility of consciousness.

A false analogy between self and absolute.

Hence if we were absolute beings evolving these terms and relations from within ourselves, we should be conscious, all the same, of our activity, and of the states and products resulting from it—we should have, within ourselves, all the materials and relations essential to self-awareness, viz. in the contents of our minds. Our consciousness, however, would be of the nature of "intellectual intuition," not sense-intuition as it now is—absolute self-awareness, not external perception or *other*-consciousness—because its materials would be evolved from within, not imposed from without. The absolute consciousness will be "intellectual," not "sense" consciousness.

### § 73.

#### *B. Pessimistic objection to monotheism.*

*Pessimism.*—This argument against a personal self-conscious absolute takes the form of an effort to refute the evidences of teleology in nature. If the evolving power of the world were absolute conscious reason, designing all things as means to ends, and ultimately to one universal end or good, then everything in the world would be rational and good. And good must include

Objections founded on experience of the world—

That the evil and imperfection which experience discovers in the world are inconsistent with conscious rationality in the absolute power which evolves the world.

The world, therefore cannot be a product of reason, neither conscious, nor unconscious.

But only of blind force, chance or necessity ;

the production and preservation of self-conscious rational life such as can enjoy the good. But does the world really answer to these requirements of optimistic theism? Experience and scientific investigation say 'no.' By far the larger part of the universe, as revealed by modern astronomy, consists of masses of moving matter either glowing with heat or frozen with cold, incapable of supporting any kind of life, and to all appearance utterly useless so far as conscious life is concerned. Thus, even of the bodies constituting our own solar system, only our own earth appears to be habitable, and the larger part even of it is habitable only by life of the lowest forms. And such living creatures as do exist upon it are exposed to disease, suffering, and death in the cruellest forms. And the misery of life, instead of becoming less when higher stages of development are reached, becomes greater, and reaches its climax in the rational life of man. How then, it is asked, can these facts be reconciled with conscious intelligence and goodness in the absolute creative power? They can be explained only by supposing that the absolute is a blind irrational power, groping in the dark, and producing fortunate combinations only here and there and by chance. It is only when the blind groping of the absolute power results in the production of finite life and mind, that reason appears. Consciousness itself rises out of the struggle for existence among finite things, and is therefore possible only to finite minds (Spencer); and reason consists merely in devising means to escape from painful consciousness and attain to pleasurable, and therefore has no meaning in the case of the absolute (Spinoza). Therefore consciousness is fundamentally pain, and reason only an effort to escape from pain (Hartmann).

The doctrine of a self-conscious, personal absolute power (monotheism) must therefore be rejected, as being inconsistent with what experience shows regarding the real nature of the world. It is only in finite minds that reason appears, and takes the form of contriving means for preventing pain and death, and promoting life and happiness; there are no such rational contrivances in nature. Nature is absolutely indifferent to the interests of conscious beings, who are only chance products thrown off by the friction of unconscious forces; and who, however important to themselves, are of no importance whatever to nature, which, "red in foot and claw with ravine, shrieks against" the monotheistic creed (Schopenhauer).

For reason is an attribute of finite mind only,

And its use is to find ways of escaping from pain.

Philosophers therefore have made a mistake in supposing that the ultimate end of the world-process is the attainment of a universal pleasurable consciousness. For consciousness is essentially a feeling of want, limitation and imperfection and therefore essentially painful. Therefore, if we may suppose the world pervaded by consciousness universally, this can only be universal pain. Hence if there is any end or purpose underlying the processes of the world, the purpose must be to escape from consciousness, and attain the rest of universal unconsciousness (whence the modern 'philosophy of the unconscious' of Hartmann).

And the real purpose of the world process must be to attain unconsciousness.

The argument against the possibility of knowing anything about the absolute has been already considered, but something more has to be said regarding the pessimistic argument against a universal mental power.

#### § 74.

#### *The Pessimistic difficulty examined.*

*The pessimistic argument* against a universal self-conscious reason is founded therefore on the

Attempts to explain evil.

prevalence of evil; and raises the problem of *theodicy*, or how evil is to be reconciled with the absolute power and goodness of God. The theistic idea, rising out of the rationalistic view of the world, makes God to be absolute and infinite power, and at the same time to be a *personal self-conscious* and *rational* being. The great problem of theodicy, therefore, is to show how the appearances of disorder and physical and moral evil in the world can be reconciled with the goodness, wisdom, and unlimited power of its author—the question of the *nature and origin of evil*—and thereby ‘to justify the ways of God to men.’

Can moral evil be explained in no way consistent with the theistic idea?

(i) The commonest explanation of *moral evil* is that it is a consequence of the free will which God has conferred on finite minds in giving them rational self-control. A self-conscious mind, in order to be an individual soul (to be *for* itself, and an end to itself) must have some measure of independence, self-subsistence and self-control. And self-control means power of adopting one's actions for the satisfaction of one's self. And self, judging its own circumstances and its own individual good from its own finite point of view, may find its satisfaction in asserting itself and its own apparent interests in ways contrary to the plan and purpose of the world-system as a whole (to the divine idea of the world). Thus a plurality of finite selves, each asserting its own interests in opposition to those of other individuals and to the plan of the whole, will introduce discord into the social organism of finite minds; and moral evil will have its source in this conflict of finite minds with one another, and with the absolute purpose itself out of which they have originated. Moral evil will consist in the self-assertion and self-isolation of the individual from the universal.

It must rise out of the individualisation, or separation of the individual from the universal—his assertion of himself as an independent absolute.

Hence moral evil has been aptly described as a "a fall of man," *i.e.*, a falling away, or self-separation of the individual from the universal; and as an "eating of the tree of knowledge," *viz.*, as resulting from man's discovery of his own power of self-control, his own individual interests and self-assertion in opposition to the universal.

Theory of a fall.

The truth underlying this view may be expressed in this way also: a unitary world of finite reals seems, at first thought, to involve a contradiction, and to be necessarily a failure, and full of evil. For a *real* thing, because it is real, tends to resist and strives to overcome and exclude other things, and assert itself to infinity. But every real must be resisted and partly suppressed by other reals. A world of finite reals therefore must be a world of strife—a war of all against all. Hence from the standpoint of the individual being, the world must be full of evil—pessimism will be the true philosophy.

Evil means limitation, and limitation is inseparable from a world of finite reals.

But this seeming contradiction is overcome by the development of reason, and the moral feeling which springs out of reason. The rational being recognises other rational beings as having equal rights with himself, and sees that his own highest good consists, not in gratifying the physical impulse to overcome and suppress his fellow-beings, but in repressing his own individuality so as to combine with others in one common life—one spiritual organism or kingdom of God. Thus, while the realistic impulse of self-assertion tends to separate individuals and make the world to be a world of anarchy, strife and evil, the idealising and moralising power of reason tends to raise human beings above the strife of nature into fellow-feeling, co-operation and peace. But in the infra-rational strata of nature—in the physical world and animal life—the strife continues.

(ii) But even though moral evil may be accounted for in this way, what about *physical evil*—cold, heat and famine, catastrophes in nature, disease, pain and death? Such physical evil, it can be seen, consists in want of co-ordination between the forces

Can physical evil be explained in no way consistently with the absolute power and wisdom?

of external nature, and the life-forces which build up and sustain the human and animal organism, resulting in violence to the organism from without, and disease from within. How is this want of co-ordination between the vital and the physical to be accounted for ?

It is true that many appearances in nature seem inconsistent with any rational purpose.

Some have asked whether physical evil may not be accounted for by moral evil. Can this discord between nature and organism, between physical force and vital, be accounted for by moral disorder of desires and aspirations in the human mind? Some have attempted to prove this but without success; disease, and death were in the world long before the appearance of man.

Many think, however, that a uniform mechanical system of physical laws imposing hardship and suffering on human beings, was necessary as a means for drawing forth the powers inherent in the human mind, thereby making possible the mental and moral development of man,—seeing that there would be no moral life, nor indeed mental development of any kind, if there were not dangers to be met, and difficulties to be overcome.

Is it possible to meet the difficulty by denying reality of physical evil ?

(iii) Some think it possible to meet the difficulty of physical evil by denying its *reality*, making it to be only an appearance which things present to us when we regard them from our own finite points of view and individual interests. Things appear to us to be evil because we cannot see their causes, connections and purposes—if we could view all things *sub specie aeterni* (from the standpoint of the eternal), we should see that every thing is right and good in its own place in the system—that everything is part of a rational plan—that “whatever is real is rational, and that the world is really

the best of all *possible* worlds." Human beings on the contrary have the inveterate habit of judging everything in the world from the standpoint of their own individual interests, and regarding every thing as absolutely evil which is inconvenient for themselves. Hence the belief that nature itself is evil. But what appears evil to us may be good when viewed from the standpoint of the whole.

The above view is favoured by such considerations as these: The world, to be a world, must consist of a multiplicity of finite and relative things existing by reciprocal interaction with one another, and working out proximate ends as means towards higher and more remote ones. Nothing is wholly an end in itself; every thing is a means partly or wholly towards something else. Hence a finite being cannot realise its own good to infinity—he must be limited and resisted, and limitations will appear to him to be evils. In the world of things, the old maxim, "strife is the parent of all things," is not without its truth. It is in this struggle that the life of finite beings consists. The rationality of the world-power does not consist in suppressing all conflict—that would be extinction and death—but in over-ruling the unavoidable multiplicity and strife of finite things, and making it the means of working out the unity and harmony of the whole—making "all partial evil" to be "universal good"—so that "all this struggling, all this striving, is lasting peace in God, the Lord."

And saying that it is an illusion rising from our own selfishness and ignorance?

Indeed various considerations can be advanced in support of the above view, that evil is only an appearance.

## § 75.

### *Substitutes proposed.*

**Substitutes for rationalistic monotheism.**—Some, however, deny the value of all the above explanations of evil, and hold that the imperfections of the world are such as cannot be explained in any way consistent with the unity, self-awareness, and rationality of the absolute power, and therefore fall back on various *substitutes for absolute monotheism*, such as—

Hence some deny that we can infer from the world of experience the existence of and absolute and finite author of the world,



And either  
make God  
to be finite

(a) *Dualism*, which makes God to be, not an infinite, but a finite being, limited in power, and striving against a rival self-existent power which he cannot wholly overcome—a unitary God, but limited in power, and therefore also in knowledge, and therefore not responsible for the evil and imperfections of the world, which he does his best to overcome (see dualistic theories above); or

As dualism,

And polythe-  
ism do,

(b) *Pluralism*—making the world to be a plurality of self-existent forces, struggling together without any unity of cause, plan or purpose, and attaining here and there to temporary co-ordination only by chance—may take the form of

(1) Polytheism, the struggle of natural forces may result in producing here and there conscious minds, animal, human, and perhaps superhuman—beasts, men, and perhaps gods—but gods limited in knowledge and power, though all struggling to introduce order into the chaos of random forces out of which they have themselves been evolved. Under this head we may refer to

Holding the  
possibility of  
finite deities;

Such thinkers as W. James, Fechner, and those who admit the possibility of mind apart from nerves and brain, and therefore the possibility of conscious beings of a higher order than men, but, like men, only finite products of evolution; for such thinkers suppose higher and lower grades of spiritual beings, all finite and evolved, and thereby tend to revive some form of polytheism. Or it may take the form of

Or reject the  
idea of God  
altogether,

(2) Atheism, *i.e.*, may deny the possibility of God or gods in any sense, by making mind to be a product of material molecules, organized by fortuitous modification and natural selection into the forms of organism, nerves and brain—a merely accidental epiphenomenon, having no causality, and no function to perform beyond its own temporary enjoyment. Or negation may go no farther than

As material-  
ism does.

(c) *Agnosticism*, the doctrine of those who think that all such problems are not only insoluble, but practically unimportant, and propose to close all the avenues of thought against them, and thereby exclude them altogether from the mind. The agnostic arguments have been dealt with above (§ 70), and here we have only to distinguish its two forms:—

Or take refuge in agnosticism—

(1) *Semi-agnosticism*, with religious motive, which accepts the agnostic theory of knowledge and seeks to found theism on agnosticism. It argues that human reason is valid only within the sphere of conditioned, relative, finite things, and therefore not capable of attaining any conception of the absolute (other than a merely negative one), nor therefore any proof nor even conception of God as he really is; but holds that there are other avenues by which transcendent knowledge may enter into the human mind, *vis.*, those of implanted instinct and divine revelation. Though human reason by itself can attain no real knowledge of soul, or God, or of the origin and destiny of the world and man, yet God exists all the same, and has revealed his existence to man, and has communicated to man such knowledge as is necessary for him, through the medium of inspired individuals; or has implanted in the mind instinctive tendencies which prompt men to believe in God even without any exercise of reasoning power, or even in defiance of reason. Thus they make depreciation of reason a means of exalting instinct and revelation.

Either partial agnosticism, which says human reason is incompetent to know what is possible or impossible in the absolute;

And that knowledge of God must rest wholly on revelation independently of reason;

This is the agnosticism of Pascal, Hamilton, J. H. Newman, Mansel, A. J. Balfour, Ritschl, and many others, based in most cases on an interpretation of the philosophy of Kant. The objection urged against the view is that, if its agnostic

But this often leads to complete agnosticism.

theory of knowledge be right, (if God be really so inaccessible to understanding as it assumes), then such truths, even when communicated, would have no real meaning to the mind—they would not really be revelation—only meaningless words, or, at most, only vague symbolism and metaphor, not real knowledge. Hence this semi-agnosticism is likely to lead to complete agnosticism.

With these may be classed Kant himself, who claimed to have demonstrated the impossibility of attaining any knowledge of God himself by exercise of reason ; but held that the existence of God nevertheless is a necessary postulate and condition of practical life, and this practical necessity makes the belief unavoidable. This however has led to the agnosticism of neo-kantian thought.

Or complete agnosticism, which denies that there is any means whatever of knowing God,

(2) *Absolute agnosticism* goes farther: we can form no positive conception of an absolute being, and therefore no understanding of the derivation of finite things from the absolute, nor of their relation to the absolute. We have however, this amount of negative knowledge regarding the absolute: we know that it *cannot* be a personal self-conscious being, because the ideas of absoluteness and of self-consciousness contradict each other. It follows also that there can be no personal revelation of the absolute such as religion assumes. No revelation can make conceivable what is by its very nature inconceivable. Neither reason nor revelation can give any light on the subject ; it is unknown and unknowable. We must therefore dismiss it from thought altogether, and along with it, all religion of the supernatural (agnosticism) and concern ourselves wholly and solely with things which lie within the reach of our senses and understanding, *viz.*, the finite things and their relations, which make up our world of experience, (empiricism), and of which alone we can have positive and experimental knowledge, and which

Rejecting, both reason and revelation.

Agnosticism,

Positivism.

alone really concern us (positivism). The only religion that has any meaning for us is the "religion of humanity" (Hume, Comte, Mill, Spencer).

Such agnosticism, however, is guilty of making a false abstraction of the absolute from the finite, and thinking that the one, if understood at all, must be understood apart from the other. The truth is that the absolute realises itself in the finite and in the finite we have a revelation of the absolute. The absolute reveals itself as containing in itself the power and potentiality of all those products which are manifested in the world of finite things. If the world be pervaded by reason and design, then that reason was inherent in the absolute which evolves it. To say that the absolute has attribute of self-awareness, means that it is aware of itself, not as existing by itself apart from any world, but as evolving from within itself the world of finite and relative things; and to say that the world is rational in all its details, is to say that it reveals the attribute of rationality as inherent in the absolute power which evolves the world.

There is no sense, therefore, in speaking of the absolute as unknowable; it is known just as anything else is known, *viz.*, by its manifestations of itself; and its manifestations to us are our own minds and the world and the world's history.

*Note.—Anti-Intellectualist movement.*—This tendency to depreciate the knowledge-giving power of the logical understanding, and to magnify the importance of instinctive feelings and the beliefs prompted by them, is widely prevalent at the present day as a reaction, apparently, against the faith in the power of intellect characteristic of the 19th century. It has been called the 'anti-intellectualism.' Hitherto men have trusted too much to the powers of their intellect, and to evidence and demonstration; and have constructed systems of philosophy and science on the foundations of logic and reasoning. But they have overestimated the power of intellect to discover truth, and have overlooked another source of knowledge—we have instinctive feelings or convictions that certain things are true or untrue, even though

But absolute agnosticism contradicts itself, applying reason to undermine reason,

And assuming what it pretends to destroy.

Recent tendency to depreciate the intellect,

unable to prove or disprove them logically, and these feelings are more to be trusted than logical reasoning. This anti-intellectualist theory of belief seems to take two forms. Our fundamental beliefs should be determined,

And say that  
feeling is  
enough,

(a) Some say by an instinctive feeling which we all have, that these things must be ultimately true which are necessary to satisfy the moral and religious needs and aspirations of our nature—that “the heart has reasons which the intellect knows not of”—which is the religious philosophy of Pascal, Jacobi, Hamilton, etc. ; while

Or that  
utility is  
enough,  
without un-  
derstanding.

(b) Some say that these things must be held true which are most in keeping with the practical requirements of life on this earth, or those things which will ‘work best’ in practice, so that utility and not logical reasoning is to be accepted as the ultimate test of truth—called ‘practicalism’ or ‘pragmatism,’ and by some ‘humanism’ (as making man to be the measure of all things—of what is true as well as of what is good).

Both these ways of thinking—religious and anti-religious—depreciate the value of intellect. They are essentially theories of belief, and both tend to make belief to precede and be independent of knowledge, and to make belief rather than knowledge to be the true guide of life, and to let “the wish be parent to the thought.”

## XX.

### RELATION BETWEEN GOD AND WORLD : OTHER ASPECTS.

#### § 76.

**God as conditioning the World and the Soul.**—The world is composed of things which limit one another, and react on and determine one another, and are therefore finite, relative and dependent. In other words, things are made to be what they are by conditions lying outside of themselves. And this world of conditioned things includes ourselves, both body and mind. We derive our existence from other sources than ourselves, and depend on other things for the continuance of our existence, and our activity is limited on all sides by the resistance of other things. We are ourselves, therefore, finite, relative, *conditioned* beings.

Finite things are conditioned by other finite things.

But when we consider the system of related things to which we belong, and see how one thing is conditioned by another, and how they all interact with, and condition one another reciprocally, we ask how such a system of correlated things is possible. It is possible only on the supposition that these things have derived their existence, order and co-ordination from a single power which has made them to be thus reciprocally related as members of one unitary system—that system being one because the evolving power is itself one. In other words, we see that conditioned and related things have the ground of their existence and relation in what is absolute and unconditioned. The world is many *in* one ; but many can be *in*

But they could not be conditioned by one another, if they were not co-ordinated by a higher power which conditions them all collectively.

And the ultimate co-ordinating and conditioning power must be the absolute which is God.

Hence the ultimate unity of the world, many in one.

one (correlated as factors of *one* whole) only on the condition that the many, in some way, derive their existence and relations from the one—that the one is logically antecedent to the many, and determines the existence and order of the many as means to its own end.

This, then, amounts to saying that relative things are conditioned by the absolute, the world by one God. This conclusion is monism; and is opposed to pluralism, which denies the existence of any one evolving and unifying principle working in the whole, from within, and makes the world to be a conglomeration of independent units brought together by forces working from without.

But the processes which make up the world-system fall, we have seen, into two partially parallel series, the physical and the mental. Hence we may distinguish three ways in which God conditions the world. We must consider God

Thus God conditions wholly the series of physical events ;

(a) As conditioning or determining *wholly the physical or nature-series* ; for, as material things possess no free will of their own, we must suppose that their relations and interactions are conditioned wholly by the absolute purpose, and by the energies which flow into them from, or have been planted in them by, the absolute power—though there will be a difference according as we adopt the deistic or the pantheistic view ; and

But if there be such a thing as free will, he can condition mental events only partially.

(b) As conditioning, in *part* at least, *the series of mental events* ; because finite minds, though their rational activities are self-controlled, derive from the absolute their existence and inherent powers of activity, and are thus far conditioned and determined by the absolute. But we must regard them as relatively free and self-controlled, because their *reality* as finite beings consists in such relative

self-subsistence and self-activity. In so far, therefore, as they are free, their activities will be determined by themselves, realising their own individual good as finite beings; and may be in conformity with or opposed to the plan of the whole. The relation, however, between the absolute will and the finite will—or the question in what the independence of the finite individual consists—is the ultimate problem of infinite and finite, absolute and relative, and therefore one which no metaphysic can fully solve.

(c) As conditioning *the correspondence between mind and body*, the mental series and the physical series. Thus physical things are so adapted to mind that they can be touched, seen, heard, and their relations understood. And mind is so adapted to physical nature that it can not only see and understand, but can react upon the forces of nature, and adapt them to its own purposes. Hence philosophy has been defined as the inquiry: what must the world be in order that it may be perceived and understood by mind? and what must mind be in order that it may perceive and react upon the world? There must therefore be a power above both finite mind and nature, which gives existence to both, and in so doing adapts them to each other—makes matter such as to correspond to mind, and mind such as to correspond to matter, and thus makes them to be one world.

Thus we see that the world of both mind and matter is a system of conditioned things which depend for their existence and relations upon an evolving and integrating power working in them, which must be itself unconditioned. The world of things then, is the conditioned; God is the unconditioned. But this raises again the deeper question of—

The correlation between mind and physical nature must be due to a correspondence established by the absolute power which evolves them both.

For correlation implies a power working in all the correlated factors.



How then does God condition the worlds of matter and mind ?

Or how is He related to them ?

This is the deepest question of all metaphysic,

Because our logic of finite relations cannot apply to the relations of infinite and finite.

*The relation of God to the world of finite things as a whole.*—How does God condition the physical series and the psychical series? How is God related to matter and mind so as to determine and condition their processes? This question involves the ultimate and essential relation of infinite and finite, absolute and relative, of what produces and what is produced. It therefore goes back into the essential nature of being itself, and is of all questions the one least capable of being adequately grasped and exhausted by the finite logic of human thought. All our understanding is founded on our experience of absolute and relative as constituting together one concrete reality. Our notions of each apart from the other is indeed positive, but at the same time only abstract and 'logical.' And our notion of how the one rises out of the other, and of the link of connection between them, is still more abstract. Hence we fall into the fallacy of trying to think of infinite and finite, absolute and relative, as if they were two things existing outside and independently of one another, like two finite things ; and applying to them our ordinary logic founded on the principles of identity and contradiction. But notions of identity and difference, of causality and reciprocity, as we apply them to the relations of finite things, cannot be applicable in the same sense to the relation of absolute and relative, infinite and finite. Our every-day logic is the logic of finite and relative things, and applies to the relations between finite and finite, relative and relative things, as they exist outside of one another in space. Hence we cannot adequately conceive how the infinite produces the finite, how God produces the world, nor how they stand related to each other because we are, ourselves contained within this process and are a

part of it. How are we to get outside of it so as to understand and explain it? Nevertheless we may endeavour to make this ultimate relation of absolute and relative clearer to ourselves by applying to it the terms

**Transcendence and Immanence** (lit. 'rising or existing above,' and 'remaining within'). The use of these words, however, is accompanied with some danger of misunderstanding, because they refer literally to positions in space, which have no meaning in relation to God and world. The terms 'outside' and 'inside' cannot have their literal meaning when used in relation to God. Their application, therefore, must be regarded as symbolical merely. By considering the relation of God and world under these aspects, symbolically at least, we arrive at three forms of hypothesis : viz. that the absolute power is—

Nevertheless we attempt to express the relation of God and world approximately by use of the words transcendent and immanent,

(a) Wholly *transcendent*, in the sense of being outside, above, and independent of any world of finite things, as one finite being appears to be independent of another ; or

And say either that God is wholly transcendent,

(b) Wholly *immanent*, in the sense of being wholly contained in, and co-extensive in essence and potentiality with, the world of things, so as to leave no degree of independent reality to finite things themselves ; or

Or wholly immanent,

(c) Both *transcendent and immanent*, in the sense of being a power which evolves and works in the world of things as the materials of its activity and thought ; but at the same time, as inexhaustible self-conscious agent and subject, remains above the world, and distinguishes itself from the world.

Or both transcendent and immanent.

Hence we have to consider, along with its implications, the view which affirms the

## § 77.

*Theory of Transcendence: Deism.*

I. The view which makes God to be wholly transcendent,

What is implied in it ?

It implies the doctrine of creation out of nothing,

And that things when once created become 'second causes,' working by themselves as independent absolutes.

**I. God as wholly transcendent.**—This view implies that the absolute personal power which has evolved the world, had substantial and self-conscious existence of his own antecedent to, and independent of, the world which he evolves ; and, having all that is required for self-awareness within himself, existed from all eternity, centred in his own self-consciousness, without any world. Then, at a certain point of his eternal existence he designed and created a world of finite things and minds, not because such a world was necessary to his own self-sufficient existent nature, but freely, and from a desire to give life and happiness to other beings besides himself. But to create, means to give reality to things ; which again means to give them existence outside and independent of the creator. The creative energy therefore passes out of the creator and becomes a world of things, and the world, thus projected by the divine will, goes on by itself independently of its creator, as a machine designed, constructed and set going by a human artificer, goes on of itself without further interference. But the machine of human construction is very imperfect, and works only for a short time ; God's world, on the contrary, is perfect, and goes on of itself so long as God permits it to go. Thus

**1. God as "first cause"** has given existence to *material things*, implanted in them the various physical forces, molar and molecular, in their various proportions ; and given them their primordial arrangements and collocations in space. From the moment of creation and collocation they had independent existence of their own, and went on

working by themselves outside of God, and thereby became "second causes." Thus the phenomena of nature are produced directly by materials and forces operating as second causes, and not by God himself as "first cause." Hence, when the volcanic eruption, the earthquake, famine or plague destroys many people, it is done by the forces of nature as "second causes," and not directly by God himself. God conditioned the world at the beginning, but since then, he has suspended his conditioning power, and left the created forces to operate independently in their own way.

Still there is difficulty with regard to this popular distinction of first and second causes. It may be said that God in creating the world must have designed the future development of the world from beforehand; and therefore, in giving existence and collocation to its materials and forces, must have co-ordinated them in such a way as to make them work out, by themselves and by pre-established harmony, all the results which they have since worked out; so that God must have foreseen and intended them all, as is implied in the idea of "divine providence." From this it would appear that the forces of nature are not really "second causes," that only free wills are such.

This independence created things is difficult to maintain in the case of the physical world.

2. God as "first cause," gives existence also to *finite minds*, and invests them with the power of free will, of self-control of their own actions, *i.e.*, power of regulating their conduct in ways independent of, and possibly contrary to his own desire, plan and purpose. In this way they are made to be literally "second causes," not co-ordinated to one another so as to work out fore-ordained results like physical laws; but each working out of its own individually chosen end, even in opposition, it may be, to the "first cause,"—from whom its potentiality has been derived. Thus every soul, from the moment of its creation,

But can be maintained more reasonably in regard to the world of mind,

Because God in creating finite minds has given them freedom to make absolute new beginnings,

becomes temporarily an 'absolute,' as it were, and monism passes over into what may be called *conditional* pluralism,—every second cause retaining its independent existence conditionally on the will of the first cause, the original absolute.

Independent of, and even in opposition to his own will and purpose, so that the world of minds is not wholly conditioned by God,

This view therefore, raises such questions as these : how far can the finite will set itself in opposition to the 'divine idea' of the world, defeat the purposes of the absolute mind, and derange the world-system as originally designed ? And how, if finite wills are thus free and absolute in their self-control, is it possible for the divine mind to foresee the actions of finite beings so as to guard against the consequences of them ? *i.e.*, how is *divine providence* possible ?

Founded on the analogy between divine creation and human works of art.

The above view of God, sometimes called 'deism' and 'abstract theism' (because it abstracts God from the world and the world from God), seems to be based on the analogy of finite minds and the things which they construct. The human artificer first designs his building or machine, then seizes on the materials presented to him by nature, adapts and co-ordinates them according to his design ; and the machine, once constructed and set going, goes on for a time by itself without further interference from the artificer. His idea passes out of his mind, so to speak, into his work, and there becomes objective and independent. Even so the idea of God (the 'logos' or divine design) passes out of the mind of God, becomes objectified and embodied in the world as a self-subsistent force ; and the world goes on operating independently by itself, without any further interference from God being necessary.

But the forces of nature may be suspended by application of new forces, which is miracle.

But the free wills of finite beings may interfere with the plan and intention of the system ; and the prayers of finite beings may call for temporary suspension or alteration of some force of nature. For both the free actions of men and the working of the physical forces of nature may lead to results that are cruel and unjust to conscious beings

Therefore justice may call for special interferences of the original creative power. Such temporary suspension and re-adjustment of natural forces is *miracle*. Miracles are to be understood, therefore, not as implying any alteration of the original plan of the world, but rather as vindications and re-assertions of it, in complications rising out of the independent working of nature, and the free wills of finite beings in their relations to nature.

Why miracles are thought necessary.

*Difficulties of abstract theism.*—Against this popular view of God and creation, however, various objections have been raised, as—

(a) That it is *inconsistent with the infinity of God*: such a world of things, and such a system of absolute wills, existing outside of God and resisting the will and purpose of God, must limit God, and reduce him to be a finite being. Two answers have been given to this: either (1) that finite and relative things, by the nature of the case, exist outside and alongside of the infinite and absolute, without limiting it, because it is by its nature such that it cannot be limited by anything finite; or (2) that God in creating the world and giving it existence outside of himself, thereby *voluntarily* limits his own infinity so as to leave room outside of himself for the world of finite things and the free wills of men; creation consists in this self-limitation on the part of the creator,—in his giving up part of his own sphere of being to the creature—and such self-limitation is not inconsistent with the infinite potentiality of the creator. God's infinity, it may be said, is an infinity of power which may be exercised or withheld; and is not limited in any way by the conditional things to which it gives existence, but merely suspended by God's own will.

Objection to the above deistic view of the relation of God and world,

That it is inconsistent with God's infinity.

But this objection may be explained away.

(b) That the general argument against the *unity and rationality* of the world-system applies as

That it is inconsistent with the

amount of  
physical and  
moral evil in  
the world  
(pessimism).

But evil may  
be necessary  
to the possi-  
bility of  
mental and  
moral deve-  
lopment.

That it  
involves  
contradic-  
tion, assum-  
ing that God  
existed as a  
thinking  
being from  
all eternity  
without  
anything to  
think about.

much to abstract theism (deism) as to any other system. The cruelty and injustice suffered by finite beings, resulting from the mechanical working of the forces of nature, is greater, it may be said, than can be accounted for by the free wills of finite beings themselves; and there is no real evidence that it is ever remedied by miraculous interferences. The ruthless working of nature is inconsistent with the possibility of a rational moral providence. The answer is that a world, imposing difficulties and struggles, thought and effort, is necessary for the development of rational and moral beings. It is still possible for such beings to raise themselves, by self-evolution, above the pitiless machinery of nature into a state of more purely, spiritual independence and blessedness (nirvána, moksha). Still the conception of a self-realising, self-evolving power inherent in finite minds, is perhaps more in accordance with the pantheistic or panentheistic theories of immanence than with deism, which isolates the individual soul from the unity and plan of the world-system.

(c) That it involves *contradiction*. It supposes God to have existed through all eternity without a world, and to have been nevertheless a self-conscious and thinking being (which would mean that the principle of acosmism or pantheism was true before the creation of the world). But to be conscious requires something to be conscious of; thinking requires not only a thinking principle, but also material for thought. Therefore God's eternal thought required object-material. The material of his thought must have been either a world of things outside and independent of him, which is dualism; or a world of ideas evolved from within, by power of his own thought and will,

which is monism. The materials of God's thought must have been of the latter kind. We are apt indeed to think of such a world of ideas as unreal; but this is because the ideas of our own finite thought are only *representations* or *reproductions* of a more real world existing outside ourselves. But the materials of God's thought were not representations of anything; they therefore constituted in-themselves a world of reality, possessing all the reality that can possibly pertain to what is not self-existent but produced (which is monism in the form of *panentheism*—all things are in God.)

Thus the eternal reality of God as thinking principle involves an eternal content of God's thought, and, therefore the eternal correlativity of subject and object, of what thinks and what is thought, of will and what is willed, of absolute and relative, of God and world. Such considerations lead on therefore to theories of the immanence of God in the world, or of the world in God. Hence the

God must always have been thinking, and his thinking must always have produced an object world.

### § 78.

#### *Theory of Immanence : Pantheism.*

**II. God as immanent.** The principle of immanence amounts to this: it is not necessary to suppose that the powers which evolve and operate in the world have any independent existence of their own (even temporary) apart from the one self-existent and absolute power from which they proceed; we must rather suppose that finite and relative things continue to exist as functions or modes of, and therefore within, the infinite and absolute itself, and must constitute that universal self-conscious life which is needed to make the absolute itself to be a concrete reality. We must suppose that the absolute reality itself is the substance of the world; that the system of relative things is evolved from within the absolute itself,

11. The view which makes God to be immanent in the world,

What is implied in it?

That the world is in God as the materials of his thought and life,



And that God makes himself to be God by the activity of evolving and sustaining a world.

But immanence is conceivable in different senses :

We may say that God is wholly contained and embodied in, and co-extensive with the world of things.

and that the succession of finite beings is the self-evolution of the inexhaustible infinite into concrete reality and life. Hence absolute and relative, infinite and finite, God and world, are different factors of one concrete reality. Thus, instead of looking for God somewhere outside of the world, immanence looks for God at the heart of the world itself. And this view seems to be confirmed by the considerations contained above (in *c*)—to be real, is to be self-consciously active, and to say that God was self-consciously active from all eternity, is equivalent to saying that God was engaged from all eternity in consciously evolving a world of things as the materials of his own spiritual life.

Hence the most adequate analogy for the relation of God to the world, will not be that of the artificer to the mechanism which he constructs, but rather that of soul to the organism which it evolves and makes to be the material of its concrete life ; or better, that of the conscious self to the world of ideas in which it lives and works and has its being. Thus God is in the world, or rather the world is in God ; the world is what it is by the energy of God working within it ; and God makes himself to be concrete self-conscious spirit by the activity of evolving and sustaining the world of relative things.

Still we must distinguish two forms of the immanental conception of God, according to the degree of reality vindicated for finite things. Thus there is the view that

### 1. God is wholly immanent in the world.

This is much the same thing as to say that God and the world are identical, which is *abstract monism*, *acosmism*, or *pantheism*. This view may be understood in this way. The world is many in one. But in conceiving it as such, two extreme conceptions are possible. It is possible

(1) To ignore the One (*i. e.*, the ultimate unity of

the world which contains the plurality within itself), and think only of the plurality of finite things. This however, is equivalent to ascribing absolute self-existence to individual things, which is *pluralism* (which, again, includes atomistic materialism), and leaving no reality to any including and controlling One, which is *atheism*. But it is possible

(2) To go to the other extreme, to ignore the many individuals, and think mainly or wholly of the One. In this case, the One, in its abstract unity, will be the only reality; and the plurality of finite things, if taken into account at all, will have to be regarded as unreal appearances, or illusions, possessing no degree of independent reality in themselves over against the One. The One, in its abstract self-existent unity, will be sufficient to itself; the infinite will need no finite; the absolute, no relative; the unconditioned, no conditioned; the One will be all in all. The world of the many will be only an accidental and non-essential appearance. God will exist, but there will be no real world. This will be *pantheism* or *acosmism*, making God to be everything and the world to be nothing.

Now if we consider how these appearances arose, which we suppose to be real things, we may conceive it in this way: we must suppose that the absolute, in becoming aware of itself, is subject to illusion; that it falls into the error, or is perhaps under the necessity, of regarding its own infinite self from an infinity of finite points of view; and thereby falls into the illusion of regarding itself as the sum of an infinity of finite things; and, being thus regarded by itself from these finite points of view, it appears to itself as the world of nature. Now finite minds, may be the infinitely different points of view from which the absolute one regards itself: and the physical world may be the *māya*, or illusion, which arises from its so regarding itself. But the categories which constitute the framework of this world—time, substantiality, plurality,

This is equivalent to saying the world of things has no real existence as such—that God is all and there is no real world, and that

Therefore the independent existence of finite things is an illusion.

How then does the illusion arise?

From the one  
viewing itself  
from finite  
points of  
view,

And appear-  
ing to itself  
as so many  
finite things.

The view  
then is pan-  
theism,

In its ex-  
treme form,  
a tendency  
rather than a  
positive  
doctrine.

interaction—have no objective existence apart from the finite minds which think them; they are only forms under which things appear to consciousness in its finite application. And the sensations, which cover over this skeleton of forms, and give it the appearance of a concrete world, are only material of finite consciousness. Thus the world of finite things has no objective reality; it is only the system of appearances under which the absolute One appears to itself, in striving to become aware of itself in terms of finite consciousness—finite minds being so many eyes, so to speak, through which the absolute One regards itself, but does so finitely and incompletely—so that, to every finite mind, the world appears to be what it is not—a plurality of finite things.

According to this view, therefore, God (as the absolute One) is the only reality; the world of finite things is unreal appearance. This is not *atheism* (that there is no God), but rather *acosmism* (that there is no world), or *pantheism* (that God is all). It is abstract monism in the sense that it takes the one in abstraction from the many, and regards it as constituting all reality by itself.

But this abstract monism or pantheism seems to have prevailed rather as a tendency, or transitional view, than as a final and deliberate conclusion. It is the natural reaction against pluralism and polytheism. For the tendency of popular thought is to regard every particular thing and every mind as having absolute existence of its own. Reflection, on the other hand, soon begins to discover that all things are interdependent on one another, and exist by interaction as factors of a whole; and some may overlook for a time the fact that this correlativity of things itself implies that the things possess some degree of reality individually. Hence this tendency to go to the other extreme, and think of the unity alone of the world, and ignore for the time being its plurality.

It found its most consistent expression in the ancient Vedantic and Eleatic philosophies, in which it was a reaction against Indian and Greek polytheism ; but as a tendency it reappears at every stage of metaphysical thought. Spinoza and even Hegel have been accused of such abstract monism, though erroneously, as their reasoning, especially that of Hegel, makes it clear that the world of things is as necessary to the concrete reality of the absolute power, as the absolute power itself is to the world of things. It seems, however, to be the legitimate conclusion from the scepticism of Hume and Kant, whose reasoning, by making the categories of space, time, substance, unity and plurality and causality to be only forms of finite consciousness, seems to take away all concrete reality from finite things, and leave only an abstract absolute.

Were the  
Vedantic,  
Elastic,  
Spinozist and  
Hegelian  
philosophies  
pantheistic ?

Did Kant's  
theory of  
knowledge  
imply a pan-  
theistic view  
of mind and  
nature ?

It may be objected to the above views of transcendence and immanence, that they are both based too closely on the ideas of difference and identity, external and internal, outside and inside, which we derive from finite things. God and the world are neither outside of each other nor in each other, in the same sense as finite things. Their relation involves both identity and diversity, internality and externality, in a way which we cannot adequately picture to ourselves. Hence we have to consider the view that regards.

The above  
views are  
based too  
much on the  
analogy of  
finite things.

### § 79.

*God as both Immanent and Transcendent :  
Panentheism.*

2. God as both immanent and transcendent : concrete theism.—This view implies that the words external and internal have no literal meaning when applied to the relation of absolute and relative ; that God is in things and above things at one and the same time ; and that it is more correct to say that all things are in God (panentheism) than to say either that God is outside of things (deism), or that God is the whole of things (pantheism).

We may say  
that the  
world is only  
a finite mani-  
festation of  
the infinite  
potentiality  
of God,

And that God as infinite power and purpose is never exhausted in the world.

And that God is in this sense transcendent ;

But realises his own concrete self-conscious spirituality in the process of evolving a world,

And is in this sense immanent.

This view then gives reality to finite things,

Not as things existing absolutely for their own sake pluralism).

For if we consider the difficulty underlying abstract monism (pantheism), we find that it leads on to *concrete* monism. The former makes the separate existence of things with their forms of space and time, unity and plurality, substantiality and causality, to have no other reality than as forms of mental representation. This is equivalent to making the world of finite things to exist only in appearance, or 'phenomena.' But the word 'appearance' or 'phenomenon' is itself a source of fallacy. When we say that something is only an appearance, we are apt to think that it is thereby disposed of, and needs no further explanation. But even if finite minds and natural objects were only appearances, there must nevertheless be a reason for every one of them. And if the absolute be one, then its so-called appearances, or the reasons for them, must be correlated together as a *system* of reasons or essences contained within the one. There will be reasons not only for their appearing (their 'existence' or coming forth) out of the absolute, but also for the relations which, as appearances, they bear to one another and to the system of the whole. But reasons are themselves realities, or the essences of realities ; and therefore the finite things of which they are the essences (which they bring into being, and support in being) are thus far *realities*, and not mere appearances. But this leads to concrete theism or panentheism.

The world, therefore, is not a system of appearances merely but a system of realities, though in a finite and relative sense. Thus

(a) Finite minds and things are *real* (1) because they all have their reasons, both in relation to the absolute, and in relation to one another—there are reasons for their *existence*, or the fact of their being evolved from the unity of the absolute

(*existence* meaning their 'standing forth' as individual things) ; and reasons for their positions in relation to one another, and the ways in which they interact with one another as parts of a system (their powers and qualities). In other words, every individual has a purpose and function to perform in the system of the whole ; it exists for the sake of this function, and it is its function that constitutes its *essence* and *reality*. And they are *real* also (2) in this sense, that the perpetually evolving system of finite things is not a merely unnecessary addition to an absolute and infinite which is already complete and sufficient in itself (deism). For the absolute without the world of things would be an unreal abstraction—a potentiality of something, but in itself nothing. It is in evolving eternally from within itself a world of things, that it makes itself to be concrete reality.

But as factors in the self-realisation of divine life.

(b) But their reality is not absolute, but only *relative, dependent, conditioned*. The finite thing is evolved and continues to exist only for the sake of the function which it performs ; its function is determined not by itself, but by the plan of the whole, and the relation in which it stands to other finite things. It exists, therefore, by interaction with other finite things as a factor of a system, and for the sake of the system as a whole, and of the end or purpose embodied in the system. An altogether free being would be an absolute, and therefore a God, and therefore a potential world in himself.

The above then is the pantheistic view, as opposed to the deistic and pantheistic

The absolute, therefore, is what gives existence, order, unity and purpose to the world of things, and in and through them gives *concrete* existence to itself, and makes itself to be actual, self-evolving, self-sufficient, and self-conscious reality. Things therefore have real existence, not indeed in an

absolute, but in a secondary, finite, relative sense. This then is the doctrine of

§ 80.

The concrete conception of God—what is implied in it.

Its relation to deism,

And to pantheism.

God is not something finished and complete from all eternity and therefore inert and lifeless with nothing to do,

**Concrete monotheism** :—These ideas lead to a different conception of God from the deistic and pantheistic—

(1) It differs from the *deistic* view, because deism makes God to be an abstract absolute, existing in isolation from, and independent of any world of finite things, and wrapt up in thought which is supposed to have no concrete reality (*i. e.* not to constitute a concrete world, and therefore to be a thinking of nothing.)

(2) It differs from the *pantheistic* view, because, while admitting the necessity of a world in God, pantheism at the same time nullifies the admission by denying reality to the world, and reducing it to unreal appearance,—denying the many in order to exalt the one, and overlooking the fact that it thereby reduces the one itself to an abstraction which is not different from nothingness—concrete reality being the unity of many in one.

In opposition to these views, concrete monism makes the absolute and the relative, the infinite and the finite, God and the world, to be correlative to each other, and each essential to the reality of the other. God without a world would be abstract power without concrete reality ; or would be something finished and complete once for all, with nothing to think or do, and therefore without activity or life. It is in evolving a world, and in being aware of his own activity and purpose in so doing, that God becomes aware of himself as infinite self-realising power, and makes himself to be *living* God.—abso

lute self-conscious spirit. The world of finite minds and things, therefore, is real in relation to God in the sense that without the energy of production in evolving and sustaining a world of things, God would not be a living God; and God is real in relation to the world, in the sense that without the evolving co-ordinating, unifying, sustaining power of the absolute, there would be no world.

But an infinite power which is eternally evolving itself into life and whose life is never exhausted.

God is thus both the beginning and the end of the world. He is its beginning as the unconditioned power which gives existence to conditioned things. He is its end in the sense that the world exists only as the means in and through which God realises himself as the self-conscious and inexhaustible absolute. Within this highest and ultimate end, all other ends, (viz., those of finite beings), are contained as proximate ends, or means.

God both beginning and end,—first and last.

### § 81.

#### *Relation of finite minds to the absolute.*

This theory of *concrete theism* raises certain subordinate questions, such as the relation of finite things and minds to God as absolute (in so far as such knowledge is possible), and the possibility and nature of the universal consciousness of God. Hence the question

**How finite things and minds are related to God** according to the above system of concrete monotheism. It follows that finite things exist by the relations in which they stand, and that these again are determined by the functions which they have to fulfil, and the positions which fall to them as factors of the whole. And they stand in two sets of relations:—

Is it possible to form any clear idea of the relation of things and minds to God?

(a) Their relations to *one another*. These manifest themselves under the categories of time and

According to the above they have no



absolute existence but exist by their relations,

To one another.

And to God.

And these two kinds of relation must not be confused.

And the relation of physical things to God,

space, identity and difference, exclusion and inclusion, plurality and totality, causality and reciprocity, contingency and necessity; and these relations, and the changes which result from the working out of their functions under these varying circumstances constitute the materials of experience, of science and empirical philosophy, in which we apply our ordinary empirical logic, founded on the principle of identity and non-contradiction.

(b) Their relations to *the absolute* out of which they proceed, in other words, to God. It is here that the great difficulty of metaphysical thought lies. We have a tendency to apply to the relation of relative things and the absolute, of finite things and the infinite, the same categories which we apply to the relations of finite things to one another, and to think of God and man as related to each other as one man is related to another man; and thus to fall into anthropomorphism,—representing God as merely an exalted man “the first among many equals.” But the relations must be different in kind; it is neither possible that absolute and relative are identical as  $A=A$ , nor that they exclude each other as  $A$  excludes not- $A$ . It must be a relation in which identity and difference are combined as correlatives so as to constitute one unitary whole, and that in a way which we cannot clearly conceive.

But in speaking of the relation of relative to absolute, and finite to infinite, we have to distinguish two kinds of relations, viz., that of material things to the absolute and that of minds.

(1) The relation of *physical things* to the absolute.—Physical things can be regarded only as means and materials, not as ends to themselves. Therefore nature can be only a *means* for the

evolution of what is end to itself; it must exist not for itself, but on account of what is for itself. But only self-conscious mind really is *for* itself. Therefore the world of the finite things can only be a system of means for the realisation of an end which is mental; and which must ultimately be the absolute's self-realisation and self-awareness of its own infinity, to which the existence even of finite minds must be in some way subservient.

(2) The relation of *finite minds* to absolute mind, of men to God.—(i) Man is a personal being, self-conscious and self-controlled, and is therefore in some degree an end to himself, a spring of free self-developing activity. His relation to the absolute, therefore, is different from that of material things; he is not a merely passive product and instrument. On the contrary, as a free being, he shares in the productive, self-regulating power of the absolute itself; he reproduces in his thought the world of past and present and its laws; and he is himself a function of the absolute power in evolving the world of the future, and working out the divine idea and purpose. Thus far, then, his affinity is with God himself, as is expressed in the saying that man is "made in the image of God." (ii) But he is a finite and relative being at the same time. He shares, indeed, in the nature of the absolute in so far as he is self-conscious, self-regulating power having a good and end of his own. But his end and good can be realised only in correlation with the goods of other finite persons, and as a factor of the one absolute good in which all relative goods are contained. Thus, though he is a free, personal, self-determining reality in so far as he reproduces in himself the absolute power, and purpose—yet,

Must be different in kind from that of finite minds,

Who are at the same time ends to themselves.

in so far as he is determined by his relations to other personal beings and to physical things, within the absolute, he is finite, relative, conditioned, and instrumental; his own good consists in his subjection to, and contribution to the universal good.

What is it then that differentiates the individual from other individuals and from the absolute;

Or what makes the individual to be an individual?

Theory that the essence of the individual is use, purpose or function.

We are compelled, therefore, to ask for the *principium individuationis*, or what it is that differentiates the individual from the absolute, and makes it to "exist" (stand forth) as an individual among other individuals. Here again we must have recourse to the principle of end or purpose. The finite individual derives its existence from the absolute, because there is a function for which the individual is needed in the system of the absolute. The absolute purpose is to be realised through a system of finite things and minds, each of which has its function in relation to the whole and to the end of the whole; and it is this *reason* for its existence that brings the finite being into existence, and maintains it in existence, and thereby constitutes its essence. The finite individual, therefore, is the absolute reproducing itself finitely, and for a finite purpose. But all finite purposes converge and meet in the unity of the absolute purpose; and all finite activities are factors of the absolute activity realising an end of all ends—finite wills are real and perfect in so far as they are functions of "one wide will which closes all."

Of the absolute end, for the sake of which all finite minds and things exist, no adequate definition can be given. But we can understand it thus far: that it is the realisation of the infinite power as "self-conscious spirit." This absolute self-awareness has usually been regarded as cognitive or intellectual merely, but some thinkers have maintained that it must contain an element of feeling—a universal feeling of well-being. Hence—

*Conclusion as to the nature of God: concrete monism*—The above reasoning, therefore, leads to a theory of the correlativity of the absolute and relative, infinite and finite, God and world, making each to be necessary to the other as factors of one concrete reality. Hence it may be called *concrete monism* or *monotheism*. The most expressive analogy from the finite sphere, is that of mind and its ideas. The mind evolves and organizes its system of ideas from within itself, thinks and lives in them, and in so doing becomes conscious of itself as the subject of them, and makes them the means of guiding and controlling its activities towards its highest end or good. Yet every idea has a certain independent existence of its own—the self reproduces itself and lives momentarily in each of them. But at the same time it rises above each and all of them (as individuals), and knows and controls them as the instruments of its own conscious life. So we may conceive that the absolute power evolves the world of finite beings, gives some degree of independent being to every one of them, becomes aware of itself as so doing, and consciously coordinates them all towards one absolute end or good, within which all finite goods are contained, and which we can conceive only as the perfect realisation of its own infinite potentiality.

Thus understood, God is both above the world and in the world, both *transcendent and immanent*. He is immanent in the sense that the world is the system of activities and products in which he makes himself to be *for* himself and aware of himself, and in which he may be said, therefore, to 'realise' himself, as absolute 'self-conscious spirit.' And yet he is transcendent above the world in the sense that, as self-conscious person and subject, he distinguishes himself from the world as his product and object, and as the means in and through which he realises his absolute purpose—that he is not

Hence the panentheistic conception of God ;

Making God to be related to world as ego to its ideas, and

Giving relative independence to individuals, but making all to be functions of a single principle, in working out a common end,

And making God to be transcendent as well as immanent.

himself identical with the world, nor the mere sum-total of the things constituting the world.

§ 82.

*Nature of universal consciousness : personality.*

If then God be the absolute, and be a self-conscious being, what must be the contents of his consciousness?

**How then are we to understand the absolute self-awareness or universal consciousness of God?**—The possibility of absolute conscious personality has already been considered. We have here to consider merely what the contents of such a consciousness must be.

It must be a consciousness of activity,

(a) It must be, in essence, a consciousness of energy, or of *doing* something—there can be no consciousness of absolute inertia—nothing can be self-conscious which is absolutely complete once for all, and has nothing more to do. And being a consciousness of all the productive energy in the universe, it will be a consciousness at the same time of its own absolute reality as the agent which gives origin and direction to all energy; and of the finite agents, or relative realities, through whose intermediate agencies the one absolute agent works out its absolute end (or to which, as active factors in the world-system, it ‘deputes’ part of its own infinite power). In other words, it will include God’s awareness of himself as absolute spirit, and of the finite spirits through whose agencies he works out his purposes in the world.

Or of himself as evolving the world of things.

But all activity is ultimately the working out of an end or good.

(b) But energy is the doing of *something*, i.e., the working out of an *end* or *purpose*. Therefore God, in being aware of his own energy, is aware of the end towards which his energy is directed, and of directing it towards that end. The absolute end is infinite or inexhaustible. The world-process by which it is realised can never rise above the finite (because no addition of finite things can exhaust

the infinite). Therefore the ultimate end is never exhausted in time, and the world-process never comes to an end (which is equivalent to saying that the life of God never comes to an end). This contrast between the infinite end and the finite means, is one of the elements of relativity that enter into the divine consciousness. And the consciousness of infinite end to be realised (*i.e.* of infinite work to do) and of his own inexhaustible power of realisation, is what makes God to be transcendent above the world as much as immanent in it.

(c) Finally it is awareness at the same time of the *means* used for the realisation of the absolute end—the system of finite processes and products in and through which the divine energy is perpetually working out its end, and in which finite minds take part as participators in the absolute energy and factors within the universal mind; in other words, of the contents and processes of the world, and the thoughts and volitions of finite minds.

It may be objected, however, that this account makes the divine energy to be unsuccessful—to be a striving after an end which never is, and never can be realised. The answer is that God's end is realised at every moment. But it is infinite, and therefore never exhausted. If God's end were at any moment exhausted, leaving nothing more for God to do, then God's energy would cease. But in that case, the universe, and indeed God himself, would sink into nothingness. For God's own essence consists in this effort and activity of self-realisation. (Life, and indeed being itself, consists in doing something, *i.e.* working out some end.) God's infinite and eternal end (*i.e.* his spiritual reality) is always realised, and yet never exhausted because it is infinite.

Therefore it must be also a consciousness of end or good to be realised.

But the world-system is the means through which God's activity realises his end.

Therefore God's consciousness must include all the contents and processes of the world.

Hence the relation of God to the world of things in time and space.

God is not in them but they in God.

Intellectual intuition.

And, if we consider God in relation to the world of time and space, we can see that God is infinite potentiality and idea, above all time and space ; that this infinite potentiality differentiates itself into the system of activities and manifestations in time and space which constitute the outer history of the world ; and that, in so doing, it closes together again into a universal self-consciousness which is above all time and space (viz. in the sense that it is not in them, but they are in it) ; and which is the end towards which the temporal and spatial processes of the world are the means. Thus time and space have no application either to the power which produces (because the power is antecedent to them and evolves them), or to the ultimate result which is produced (because they are in it, it is not in them). In other words, time and space apply neither to God as power and idea, nor to God as self-realised spirit ; but only to the world-process which intervenes, so to speak, between the idea and its realisation—between God as power which evolves all things and God as universal mind.

It follows that God's awareness of the world is not sense-cognition like ours,—knowledge through the medium of impressions from the outside ; but what some have called 'intellectual intuition,' or awareness from his own absolute point of view (*sub specie aeterni*), of his own activity and its products.

### § 83.

#### Objections to concrete monotheism.—

It may be said that according to this view God never is, but is always coming to be ;

(a) It may be objected that this *concrete theism* makes God to consist not in *being*, but in *becoming*, and therefore in a never-ending process—that he never *is*, but is always in the making. But it is to be borne in mind that passive inactive being (if it could *be* at all) would not be life but death—the being of a burnt-out cinder. Life consists in activity, and activity is the process of attaining an end, and the end includes continuance of being.

God is not inert substance, but inexhaustible life and thought ; and his life consists in the process by which he makes real his own infinity. An exhausted infinity, an infinity which is being without any becoming, would be an infinity of nothing. God is eternal life because he is infinite reality, and therefore infinite activity—the unity of being and becoming.

But in reality it makes God to be life, which is always realising itself and is never exhausted.

(b) It may be objected also that this system is inconsistent with the *freedom* of the finite individual. This, however, is a mistake ; it is only by sharing in the activity of the absolute,—in being itself, to a certain extent, the absolute,—that the finite mind can be free. Otherwise it would be carried about, or held in equilibrium, like atoms of matter. It follows from the theory, however, that only God, the absolute, is absolutely free ; man's freedom is only relative.

That it is inconsistent with the liberty of individuals.

(c) It may be objected also that it is inconsistent with the *reality of evil*. But neither can this be maintained. Evil will follow from the nature of personality and freedom. A person is an individual possessing to some degree the power of self-control ; and self-control means the power of regulating one's actions along lines different from, and possibly opposed to those of other individuals, and therefore also to the plan and system of the whole. Indeed absolute individuality and freedom would mean absolute severance from any unity of a whole ; which would make evil to be without any meaning. Moral evil, therefore, must consist in this relative severance of individual wills from one another, and from the system of the absolute as a whole, and the assertion by each, of an end and good of its own as an individual, in opposition to the absolute end. But it is in the absolute end

But it makes every rational individual to share in the freedom of the absolute.

That it takes away the reality of evil by identifying the individual with the universal ;



But evil can be explained only as the attempt of the individual to isolate himself from the universal to which he belongs.

that all real good is included ; and the individual can have no real good nor substantial existence apart from its function in the plan of the whole, and from its place in the life of the absolute. Therefore moral evil is equivalent to the self-extinction of the individual life (conditional immortality).

(d) Another objection may be founded on the fact that it accepts, without concealment, the ultimate contradiction which appears to us to be involved in the relation of the relative and absolute, finite and infinite, conditioned and unconditioned. In individual things and minds, infinitude and finiteness, absoluteness and relativity, liberty and necessity, divinity and humanity, in some way meet, and become in some way united and reconciled. The logic which applies to the relations of finite things among themselves does not apply to this relation. It is therefore an ultimate fact, and a matter of intellectual intuition or necessity of thought, rather than of understanding in the common sense. It is the ultimate something which cannot be represented in imagination. The nearest analogy is the unity of mind in the plurality of its ideas (as above).

### § 84.

Thus three conceptions may be included under the name of theism :

**Recapitulation : Monotheistic theories compared.**—Systems which regard God as a unitary self-conscious being may be included under the name of monotheism. These may be divided into three forms, according to the view taken of the relation of God to the world :

Metaphysical dualism, though it makes God to be finite ;

(a) The *dualistic* theory which makes God to be essentially a finite being, limited by another self-existent substance outside of himself,—supposing the resisting power to be either a self-existent personal being (ditheism) or self-existent material substance and force.

(b) The theory of *abstract theism* or *deism*, which represents God as essentially absolute and infinite, and as having concrete reality in himself as such, apart from, and independently of any world of finite things ; but as voluntarily limiting his own infinity, and giving independent (temporarily absolute) existence to a world of limiting and resisting things outside of himself, by an act of absolute creation ; and

Deism which makes the created world to be an absolute in the derivative sense :

(c) The theory of *concrete monotheism*, which represents God as giving concrete reality to his own absolute and infinite being by evolving a world of finite and relative things, and thereby becoming conscious of himself as the thinking and designing agent of his own inexhaustible activity, and realising himself as absolute *spirit*, i.e. as the power which consciously evolves all things and retains them all within the sphere of his own consciousness and will, and by so doing realises his own inexhaustible life.

And panentheism according to which the world is contained within the life of God.

Which of these hypotheses, then, is the true one ? It may be that at this point we are face to face with the ultimate indemonstrable, and have to remain satisfied with 'intellectual intuition'—with *seeing* what is beyond reach of ordinary logic. Human thought deals directly with finite things and relations, and according to the logic of the finite. The cognition of finite things includes indeed the cognition of the absolute as the ground of the finite, because finite things and the absolute form one concrete reality. But, nevertheless, finite thought cannot be expected to exhaust the connection between absolute and finite. The innermost essence of the relation, and how the finite rises out of the absolute, remains beyond the reach of finite thought, because to know it exhaustively would be to exhaust the infinite itself.

Comparative claims of these conceptions.

For the practical purpose of the guidance of life they may lead to the same result.

Philosophy  
prefers the  
panentheistic  
view as the  
more demon-  
strative.

It follows therefore that all the above theories must be more or less symbolical ; and the real question with regard to them therefore, is not which of them is absolutely true, and which absolutely false, but which of them approximates most closely to the truth ; it is possible that each may represent some aspect of it, however inadequately. Thus it is probable that many still adhere, perhaps half unconsciously, to the dualistic theory, as the easiest, to think according to human analogies. And there is certainly this element of truth in dualism that there must be something in the system of finite things which *resists* the realisation of the supreme good, and makes the world to be a process. Religion may prefer the deistic view in some form, because, while admitting the infinity of God, it claims to find an independent origin for evil in human free will and the operation of second causes in nature, and to do full justice to its enormity. Philosophy falls back on the third theory, as seeming to give a more logical conception of the absolute and relative, infinite and finite so far as logic can go, and of the organic unity and meaning of the world-system, and to bring the being of God within the reach of logical demonstration.

### § 85.

#### *The World-system as a whole : Causality and End : Valuc.*

The world is  
not a thing  
merely but  
a process.

**The meaning of change : origin of causality.**—We can perhaps conceive a world of which the contents would hold one another in stable equilibrium ; and in which, therefore, there would be no change, motion nor evolution. But such a world, if it could exist at all, would be a dead world. The world with which we are acquainted is a world of unceasing change, the many factors of which go on arranging and re-arranging, adjusting and re-adjusting themselves, in an apparently endless process. "All

things flow." The very essence of finite things seems to be energy—the effort of every thing, not merely to remain what it is (self-preservation), but to become something better than what it is (evolution). And things are so correlated as factors of a system that the effort of every one real to change its conditions, affects every other real in the universe. "No zephyr breathes, no leaf falls, no wavelet ripples on the bank, but the movement thrills through all space"—the activity of one real to change its own condition calling forth the reaction of all other reals—most directly, of those in immediate relation with itself, but more remotely, of all the rest and of the system as a whole.

For the essence of things consists in effort or energy,

Thus we can see that every change resulting from the action of a real, is the *resultant* of the real's own action upon other reals and through them upon the whole, and of the reaction of other reals and of the whole upon the one real. Thus every change, every act of causality, that takes place in the world, is actually a re-adjustment of the whole moving equilibrium of the world; just as every change in every cell of the living organism means, we know, a re-adjustment of the whole organism for better or worse.

And their effort consists in striving to become different from what they are.

This tendency of every real to change its own condition and that of other reals, constitutes the attribute of *causality*. And, if we must suppose the same real to strive always in the same way under the same circumstances, the operation of the same real or combination of reals will, where the circumstances are the same, be always followed by the same consequences. This we call the *law* of uniformity.

Hence the course of the world consists of changes causing other changes—series of causes and effects.

Why then  
do things  
change ?

The question, then, which presents itself in connection with this system of inter-related changes and tendencies to change, is this: what is the origin and meaning of this universal tendency of all things to change? Why do not things remain in a state of restful stable equilibrium? Why all this rushing, struggling and striving, which makes up the history of the world? There are two possible answers:—

Some think  
that the  
tendency to  
change is  
self-existent,  
and has no  
reason ;

1. *That the world is irrational: naturalism and materialism.*—No reason can be given for this state of things because *it has no reason*. It is above all reason. It so happens that things exist with this tendency to change, and this is all that can be said about it. It is self-existent. We must accept the fact of its existence; and not waste our powers seeking reasons where there are none.

And in this  
case, change  
is commonly  
identified  
with move-  
ment of  
atoms;

This may be called the *positivist* answer (scepticism or agnosticism says merely: there *may* be a reason for the world as it is, but we do not know anything about it). And positivism, either avowedly or by implication, takes a materialistic form. We must assume that the ultimate self-existent reality consists of material atoms with the moving forces by which they move about in space, and that all things and qualities of things, result from the integrations and disintegrations of these atoms. Space, atoms and motion are the first parents of all things; all the changes in the world are changes of position and relation resulting from movement. But every atom, it is assumed, has the power of communicating its own movement to other atoms, thereby checking their movements, and changing their directions. This is causality; there is no other kind of causality in the world, than this

Whence  
materialism

self-existent motion and transference of motion from one atom to another ; and we must accept the fact as we find it. There is no reason for it. It is the self-existent fact.

Which assumes things as self-existent without explanation,

This view, therefore, assumes change without explaining why there should be any such thing as change ; and reduces all change to motion in space, but fails to explain why things should move in one direction rather than another, or with one degree of force rather than another ; or why one thing should have that power of transferring its motion to other things, which is causality. Thus the integrations and disintegrations of atoms which build up the world may be said to take place by chance. Therefore the materialistic hypothesis assumes everything and explains nothing.

And pessimism which makes change to be antecedent, to all reason.

2. *That the world is rational : idealism—*

But is it not possible to give some explanation of change and causality ? Why should things change at all, and not rest in perpetual equilibrium ? There must be some reason for change. A self-existent world, such as the above theory assumes, would rather be a world of eternally motionless and unchanging things. For change by its very nature require a reason for change. And further, if things are to change, why should they change in one particular direction rather than another, and produce one result rather than another ? Why should the thing A pass from its present condition into another condition ? and why into one condition rather than another, *e.g.* why from the condition A into the condition *Abc*, and not into *Alm* or *Ano* ?

But is it not possible to assign some meaning to the world ?

But if all change thus requires a reason for it, what reason can be suggested ? The only reason that can be given why things should change at all, is that there is something 'wrong' or defective in their present state ; and the only reason why

That is what is attempted by the idealist and rationalist philosophy which assumes that

they should change into a particular other state, is that that state will be 'better,' than the present. Change can be explained only as a struggle from 'worse' to 'better,' from incomplete to complete. Hence

Every change must have a reason for it.

*Objective idealism*—How then can this transition from 'worse' to 'better' be accounted for? What makes the one change into the other? It must be the power of the 'better' itself. But while the worse is present, the better is still future; while A is still A, *Abc* has as yet no concrete existence. How, then, can the future operate in, and impose itself on, the present? We find an indication of the possible way in our own conscious life, viz., in ideation and volition. Idea is the future working in the present. When we strive to better our condition, another and better condition is present to us in idea; and it is the presence of the future in idea that makes us feel the imperfection of our present state, stimulates our activity to escape from the imperfection, and guides that activity to the realisation of the better state now present only in idea. Thus the whole of our active life may be said to consist in ideas realising themselves—in the future transforming the present. And self-realising idea is end or good—something which has *value*, either as a means towards a higher good, or as a good in itself and for its own sake.

And the one possible reason is the attainment of good.

Are we justified then in assuming that, in our ideation and idea-guided volition, we have, revealed to our consciousness, what is deepest and most essential in the working of nature itself? If so, then our mental causality—with its wants, its ideas, and striving to realise ideas—will be a reproduction, in some sense, of the causality which operates in

Therefore the whole process of the world must be striving towards a good.

nature and the world as a whole. Indeed we are certain that the analogy holds good thus far, viz., that causality in nature, like volition in ourselves, is not random change (chance can produce nothing), but a struggle from a lower to a higher state. And this forward impulse towards a better condition may be understood in this way: in a living system as a complete whole, the future will be a part, of the system, as well as the past and present, and the future will work within the present, as an ideal good striving to realise itself. The whole will work in every part, making all parts, and all changes of all parts, to be means towards its ideal. Now the world is such a system,—one in which the past, the present, and the ideal future form one organic whole. Causality, therefore, is this struggle towards a higher good—the future transforming the present—the ideal realising itself in the actual. Future good is present in the world somewhat as idea is present in our minds—for idea is the future operating in the present. Indeed the actuality of the future in the present seems to be implied in the very nature of time.

And considered from the finite point of view, the good is future—i. e. is end present as idea.

Therefore all causality is the future working in the present—i. e. end or good or idea realising itself,

For time implies an ultimate unity in which past, present and future are connected, and in which the future draws itself out of the present and the past, and is therefore organically connected with them.

Causality therefore may be said to be the idea of the good realising itself (Plato). Or the whole causal process of the world may be said to be an infinite will-power realising an absolute good or *end*—something having *absolute value* in itself and for its own sake.

In other words, the universal energy of God.

Thus the analysis of cause brings us back to the same *idealistic and theistic* conception of the world as before. Hence



## § 86.

But the power which works out reason in the world, i. e. realises good, is on that account a rational power.

Or, in other words, Reason itself.

Therefore if the world be a system of causes and effects,

And if all causality be the working out of reason,

Therefore the evolving principle of the world is

**The universal reason: the idealistic and rationalistic philosophy :** It follows then from the nature of causality itself that the world is a system in which all the elements are correlated as parts of a whole, as means to end—in which the past was so co-ordinated as to produce the present, and the present is so adjusted as to work out a future good. But such co-ordination of parts to whole, of means to end, of present to future, of many to one, has a reason for itself, and is therefore the work of *Reason*. If this, then, is really the nature of the world, we are warranted in saying that the world as a whole is the embodiment and expression of one *universal reason*.

For reason is the power of distinguishing between past, present, and future, near and far, better and worse ; of rising from parts to wholes, and comprehending things as parts of wholes and means to end ; of foreseeing the future and possibilities of future good, and of selecting and combining present means for future good. We see all these characteristics manifested in the finite reason and productive work of man. But we have sufficient ground for concluding that the absolute productive power is itself such a co-ordinating power of one in many. It follows, therefore, that the world-system itself is pervaded, from within outwards, by *universal-reason*—that only “what is rational is real, and whatever is real is rational”—that everything in the world serves a purpose and fulfils a function as part of a whole, and means to an end.

It follows that the idealistic philosophy which thus makes the world to be the progressive realisation of idea, is at the same time *optimistic*—the

idea which realises itself in the world must be the idea of the good—God must be good. Thus Plato said that God is the idea of the good, meaning that God creating the world, is equivalent to the good realising itself in a world of concrete things. Hence the world, though not a perfect world—no system of finite things can be such—must be at least “the best of all possible worlds.”

reason of  
rational  
power.

This idealistic and optimistic view has always been opposed, never more than at the present day, by the pessimistic view, which regards chiefly the signs of imperfection and dys-teleology in the world, and on these grounds denies that the world can be the product of one universal reason. (See also note on the irrationalist or anti-intellectualist theory above).

### § 87.

**Sub-specie æternitatis**—It follows from the idealistic view that the absolute power which evolves all things as factors of one system and means towards one ultimate end, will at the same time be *aware* of all its products, past, present and future, as factors of one absolute whole in relation to its own absolute self. To the absolute consciousness things and events will not only be past, present and future in time, but will also be present in one eternal *now*. In other words, finite things will indeed be viewed as finite, and as co-existent and successive, but they will also be viewed as co-ordinated together, and therefore present together as factors of one system, in relation to one eternal and absolute subject. By the universal reason, therefore, all things will be regarded “from the standpoint of the eternal,” because the subject which regards them is eternal, and they are factors of one eternal system. Thus time and

Finite things  
and events  
are in time  
and space,

and therefore  
time and  
space them-  
selves are  
products of  
the absolute  
principle and  
therefore  
contained  
within the  
sphere of  
absolute cog-  
nition.

eternity will be correlative to each other, each rising so to speak out of the other.

And viewed as a system in which all parts are together and correlated in one system and whole, in which space and time are factors, but which is itself above space and time.

It follows that things and events can be fully understood only when regarded as factors of the system as a whole ; and that finite reason, in seeking to understand them, must try to plant itself, so to speak, at the centre of the system like the absolute thought itself ; *i.e.*, must raise itself above the circumstances of particular times and places, and conceive all things and events evolving themselves from the centre as factors of the absolute whole. This has been expressed by saying that the "wise man" seeks to view all things "under the aspect of eternity," *i.e.*, from the standpoint of the whole, and as parts of an eternal plan and system, which is not itself contained in space and time but contains these within itself. Such absolute consciousness will be what has been called "intellectual intuition."

This Spinoza called viewing things under the aspect of eternity, *i.e.* from a standpoint above time.

Thus Spinoza and many others have tried to explain the apparent imperfections and evils of the world-system by saying that they appear to be imperfections only because we consider them in relation to ourselves and our finite circumstances, and therefore from our own finite standpoint in time and place ; and that when "viewed from the standpoint of the eternal" as God views them, they would be understood to be necessary parts of the eternally evolving system. (See the attempts to explain physical and moral evil above).

## XXI

### GOD AND MAN.

#### § 88.

#### *Moral Government and Providence.*

The word 'providence' means the power of foreseeing what will or may happen in the future, and making arrangements beforehand which will prevent anticipated evil, and bring about good. The phrase 'moral government of the world' means that there is a superior power which takes into account the moral qualities of actions and characters ; and which controls the operations of nature and developments of human society in such a way as to ensure the ultimate triumph of righteousness over iniquity, and promote the development of moral character—such government as will make the world to be a sphere of moral 'probation' and culture, in which character is made possible, developed, tested, and strengthened.

Providence means foreseeing and making arrangements beforehand.

Moral providence means foreseeing and determining events in such a way as to sanction moral goodness, and defeat moral evil,

Hence, when we say that there is a moral government and providence working in the world, we mean that the creative power has so constituted the world that righteousness is vindicated, and rewarded, and wickedness is punished. In what ways there can providence accomplish this ? In the first place

1. We may suppose that providence works in such a way that virtue is rewarded and wickedness is punished in *the present life*. For it may be the case either (1) that the absolute power has so co-ordinated beforehand the physical forces of nature with the actions of men, that righteous conduct shall result in happiness and success, and vicious

In order thereby to promote the development of moral character.

Either by pre-established harmony of the forces of nature,

Or by Miraculous interference,

Such as to justify goodness and defeat wickedness in the present life.

Which was the common opinion when there was as yet no belief in a future life ;

conduct shall end in failure and misery (which is assuming a pre-established harmony, goodness and happiness); or (2) that, without having co-ordinated the forces of nature so as to work out this result of themselves, it interferes, as need arises, with the normal working of natural forces, and suspends or modifies them occasionally, in order to make them vindicate goodness and defeat or punish guilt (which is the theory of miracles). From this it will follow that virtue is rewarded and vice punished in the present life.

This belief underlies the religion of the ancient Hebrews embodied in the writings of the Old Testament. "The Lord is my shepherd, I shall not want." It forms the subject of a special discussion in the book of Job. Job, a righteous man, is suddenly overwhelmed by calamities to his property, his family and his person. His friends ("Job's comforters") try to reconcile him to his lot by assuring him that these misfortunes must be owing to some radical vice in his own character and life, so that he has none to blame except himself. "Remember, I pray thee, who ever perished being innocent? or where were the upright cut off?" Job cannot believe that there is any proportion between his own sin and his misfortunes. And in the end, he is compensated for his sufferings by having his family, health, and property restored to him, and his enjoying greater happiness than he had dreamt of before. In this way, however, the old Hebrew faith of the "friends," that the righteous are never allowed to suffer long, is justified in the end.

But the belief in providence in this form waned in course of time. Jesus asked: "Those eighteen upon whom the tower in Siloam fell and killed them, think ye that they were sinners above all men that dwelt in Jerusalem? I tell you nay." Even so, in modern times the question has often been asked: "Those who perished by the earthquake of Lisbon and the eruption of Martinique, were they more wicked than other men?" The difficulty of answering such questions caused the old belief of reward and punishment in this life to

be supplemented or superseded by the belief in a future life. In other words,

2. We may suppose that moral providence works in such a way that righteousness is rewarded and vice punished in a *future life*. Such equity cannot be realised fully in this life. This world is a sphere of moral education and probation. For this end, the forces of nature must be allowed to go on working according to their own uniform laws without regard to distinctions of right and wrong—nature must remain indifferent to moral distinctions. Men must be allowed to work out their own free wills without check, however wicked they may be, and however much injustice they may cause in this life. The good must be allowed to suffer or prosper according to the circumstances in which they are involved. It is only in this way that *moral character* can be evolved, confirmed and tested. The free rational soul can rise to moral excellence only by exercise of its own rationally directed effort, *i.e.*, by self-realisation; and this is possible only in a world where there are difficulties to be overcome, and sufferings to be borne. Moral providence is sufficiently manifested in the world if the world be so constituted that finite minds can, by their own effort, raise themselves to higher levels of worth, and realise their own affinity with the divine nature. The argument of the ancient Stoics went thus far. Virtue, they said, is its own sufficient reward.

But it may be thought that justice requires more than this. Goodness of moral nature must be supplemented by goodness of external circumstances. If there is a moral providence in the world, it must manifest itself in the outward justification of goodness, *viz.* by making it to result in happiness. If it

Or to make compensation to the good and punish the wicked in the future life ;

Though some have argued that rectitude is its own sufficient reward,

While some hold that the necessity of future compensation for unmerited suffering in this life is the chief argument for a future life ;

does not do so in this life, then it must provide another life in which it will be done. The present world, therefore, can be nothing more than a preliminary stage in the development of moral life ; that life must be prolonged into other spheres of being in which goodness will find its reward. This is the Christian belief.

And even for  
the being of  
God.

This necessity of moral compensation has been to many, e. g. to Kant, the principal argument for future life. If God exist, he must manifest his existence especially in moral providence. But moral providence is not sufficiently manifested in this life. Therefore there must be a future life in which righteousness will be fully justified.

And to some it has been at the same time the chief argument for the being of God, because without God there can be no certainty of such compensation.

### § 89.

#### *Liberty and Necessity.*

All events  
depend on  
something  
antecedent to  
them.

The world is a system in which all the parts exist by reciprocal interaction with one another and with the whole. We call this interaction by which changes are produced, causality, and say therefore that all events are determined by causes. But human volition is an event. Therefore volitions also must be determined by causes. This is the argument used to establish the theory of necessity. But there is confusion of ideas here. When we use this argument, we are using the word cause to include two very different ways of producing change. These two ways may be distinguished as *efficient* causality and *final* causality (or end). But though they agree in producing change they produce it in such different ways that they had better be distinguished by different names. The name *cause* had better be restricted to efficient cause, and final causes had better

be called *reasons*. Let us consider then the difference between a *cause* and a *reason*, and this will open up more fully the meaning of freedom and necessity.

(a) *Causes* are tendencies to change which are put into thing from the outside, so that the things only acts as they have been acted on. They are only reservoirs and bearers of energy, giving out the force which has been put into them. The things which manifest such causality, therefore, are passive products, produced things, and instruments of production, and therefore not ends in themselves, but means for the benefit of other things. Thus suppose the thing *A* has in it an impulse to motion which has been put into it from some other source. It strikes against *B* and transfers its motion to *B*, and so on. In this way the series and systems of changes going on in the physical world are produced, and this is causality. Nature, therefore, is the sphere of causality in the proper sense of the word, (efficient cause). It is therefore also the sphere of *necessity*, because things subject to such causality are only passive instruments ; their causality is put into them, not their own ; and they are subjected to uniform laws not of their own making, and made means to ends other than their own good.

(b) *Reasons* (final causes), on the contrary, suppose a thinking principle and work from within the thinking principle itself. A reason for doing anything is the idea of a higher good. The rational being discerns the idea, identifies himself with it, and concentrates his energy in its realisation. The idea of good determines his action. But his highest good is his own highest self. Therefore determination by the idea of highest good is self-determination ; and action proceeding from *self*-determination is *free* rational action. The self in so far as it deter-

This relation of dependence has two forms—cause and reason,

Causality is a relation between finite things among themselves—

A change in one thing making necessary a change in another thing.

A reason is a relation between the absolute and finite things,



And between minds and the things on which they act, in so far as minds partake of the absolute power.

mines its actions for its own good and makes other things subject to it as its means, is *free*, because the activity is not put into the self by something else, but springs from its own nature. On the contrary, that which is determined by other things, and thereby made to be a means to other things, is thus far subject to *necessity*. Thus determining energy has its ultimate spring in idea within the rational self, but proceeds from the active self outwardly into things, and from one thing to another thing, thus becoming efficient cause.

In fact, a reason is an end or good which mind realises through the medium of things.

And indeed we found before that reason or end is the ultimate origin of all change, and ultimately therefore of physical motion and causality as well as of volition—that the source of all change is the absolute energy realising an absolute good by evolving the world of finite things, and giving them motion and co-ordination as means to that end.

And hence the real meaning of freedom—

Cause and reason therefore correspond to the two kinds of relation already pointed out—relation between finite things among themselves, and relation between finite things and the absolute power which evolves them. Finite things act and react, and occasion changes in one another causally. The absolute power gives embodiment to absolute idea in the system of finite things and relations. The relation between the absolute and its products is not the same as that between finite things among themselves. The latter is a relation of *external* mechanical causality; the former is one of *immanent* self-realising purpose, i. e. reason.

Thus in self-determination—in free will—the finite self shares in the nature of the absolute. But only the absolute is absolutely free—determined directly by the highest good. The finite soul is only relatively free. Its highest good is determined by its function and purpose in the system; and it is liable to be diverted from its highest good by

influences operating as efficient causes from the outside. *Autonomy* of will, or complete self-control is liable to degenerate into *heteronomy* or determination by impulse other than its highest good and therefore other than the highest self. But the full discussion of motive and volition belongs to psychology. Hence contrast between

Power of acting from reasons instead of causes.

**Materialism and Idealism.**—The above distinction brings clearly before us again the difference between the materialistic (naturalistic) and the idealistic theory of the world. Both seek to go back to the beginning. The materialistic theory goes back as far as matter and motion, and stops there; these, it assumes, are self-existent realities, and therefore the absolute beginning behind which we cannot go; these are beyond all derivation and explanation, all things being derived from them, but they, from nothing. Idealism, on the contrary, goes beyond matter and motion, and seeks to explain them by finding something more ultimate; and finds the ultimate to be the Good existing as yet only as Idea or End—the Idea passing into desire, desire into will, and will into energy, and thence into matter and motion, and natural causality. It thus assumes will, desire and idea as we know them in the human mind, to be a finite reproduction and analogue of the ultimate power which evolves the world.

The ultimate as matter and force.

The ultimate as idea of good.

### § 90.

#### *Future Life and Eternity.*

We have come to the conclusion that the world is a system, pervaded by universal reason, and by providential plan and purpose. It follows that every finite soul, as a 'real,' has its place and function as a factor in the evolution of the world-system. And from this it follows that the individual can attain his own perfection and good, the end of his being, only by fulfilling his function in the plan and purpose of the whole:

Every individual has a reason for existence,

And the reason lies in the purpose which he has to fulfil in the world-system.

Therefore the individual will endure so long as its function endures, and it fulfils its function,

Because in so doing it participates in the absolute life,

Working out the absolute end and good.

But the individual soul does not exhaust its function in the present life.

And further the nature of rational mind reveals the fact that the thinking principle has its root in a power above space and time.

(a) We may conclude, therefore, that the individual soul will continue to exist as long as it fulfils the function for which it is needed as a factor of the system, and by so doing realises the possibilities of perfection inherent in its nature—the end for which it exists. For the function and end for which it exists constitutes the *essence* of its being—that which makes it to exist—and the fulfilment of its function, is what sustains it in existence. And we can understand from this that, if it fail to fulfil its function, to approximate to its end and realise its good, it will by that failure, eliminate itself and cease to exist as a factor of the system. For to live as a free rational being, is to participate in the life of the absolute. But to participate in its life, is to participate in the working out of the plan and purpose of the absolute. Therefore, to fall away from all share in the working out of that purpose—to become concentrated in self—is to cease to live.

(b) But again, there is every reason for believing that the soul cannot exhaust its function, fulfil its purpose, or attain its ultimate end completely in this present life; that, as a rational spiritual principle, having the root of its being, so to speak, within the absolute itself—in the evolving power which is above time and space—its purpose and function must extend beyond the present life, into other forms of being for which the present is only a preparation ;

(c) And for believing that, as thinking, productive, organizing, self-developing *soul*,—i.e. as a productive power and not a merely passive product—it is, in essence, above and independent of the series of events in time. This appears evident from the nature of intelligence and will. The

power of thinking and understanding successive finite things in time—as in remembering the past, conceiving the distant, anticipating the future, and discerning the inner causes and relations of things, which are beyond reach of sense—this implies the activity of a thinking subject which is itself above time and place—a subject which is, in essence, independent of the immediate conditions under which it works for the time being, and can view all things *sub specie aeterni*—from the standpoint of the whole.

And is there-  
fore an active  
producing  
principle, and  
not a merely  
passive pro-  
duct,

From this it seems to follow that the soul is not dependent for its continued existence on particular conditions of time and place—on the outward series of physical phenomena—but can survive these outward phenomenal changes, and enter into new systems of outward relations in order to fulfil its function as a member of the system, and factor of the world-plan.

And there-  
fore above  
physical  
causality.

(d) Finally many things in the constitution of the mind itself tend to show that soul is a being in process of evolution, that its evolution is not completed in this present life; and that therefore, if it is to attain its end and fulfil its function, its development must be prolonged into a future life. This fact, that soul is not a finally completed thing, but a 'real' in process of evolution, is shown:

And still fur-  
ther, the  
nature of  
mind reveals  
the fact that  
it is a princi-  
ple in process  
of evolution  
from lower  
to higher,  
which is not  
completed in  
this life.

(1) By the nature of its *intelligence*—which is to strive after higher and higher spheres of comprehension to which it cannot fully attain in this life, hereby manifesting the incompleteness of its present stage of development; and

This is im-  
plied both in  
the intellec-  
tual,

(2) By the nature of its *moral constitution*, which manifests its own present incompleteness in two ways—

And in the  
moral consti-  
tution of  
mind—e.g., in

The craving  
of our moral  
nature for  
higher deve-  
lopment,

(i) In the aspiration after *higher ideals* of moral excellence—its being so constituted as to make us strive after higher and higher levels of moral perfection, though these moral aspirations, like our intellectual ones, cannot be satisfied in this life ;

And for  
moral equity,

(ii) And in the demand of our whole moral nature for *justice*—the ineradicable conviction that moral rectitude should find its sanction in happiness though there is no essential connection between virtue and happiness in this world.

But the  
favourite  
argument  
for future  
life has been  
that the soul  
in a unit of  
substance,  
correspon-  
ding in the  
spiritual  
world to  
atoms in the  
material.

It follows that this life must be prolonged into another sphere of being, in which these demands of both intelligence and conscience will be satisfied. (p. 381).

Arguments for immortality used to be drawn from the "simplicity" of the soul. It was assumed to be a concrete thing, and to be a perfectly simple and indivisible thing, as an atom of matter was supposed to be. And to be indivisible, is to be indestructible and immortal. But it is not usual now to conceive the soul as a thing after the analogy of a material atom. Yet this argument was the favourite one from Plato to Butler.

### § 91.

Hence all  
philosophies  
resolve  
themselves  
into two phi-  
losophies—

**Conclusion :** We now see that all philosophies, are reducible to two :—

Naturalistic,  
which inclu-  
des,

(a) The *naturalistic* philosophy, called also positive, which assumes that the ultimate forces, or forces working in the world, with all their degrees and tendencies, are self-existent, and antecedent to all idea, reason or intelligence, and therefore operate blindly without any end or purpose, so that mind, with its national powers and ideas of good, is only an occasional, accidental and inessential product, without any meaning or value in relation to the whole. This doctrine commonly

takes a pluralistic form, as in atomistic materialism. The philosopher Schopenhauer gave it a monistic form in his doctrine of 'the world as will,' giving the primacy to will over reason, (*i. e.* making it to precede and be independent of ideas, and to make ideas instead of being made by them). In this form it has been called *voluntarism*. But such voluntarism, by making will and activity to be antecedent to idea and reason, makes it to be merely another name for blind self-existent force. It is therefore identical with the anti-intellectualism or irrationalism referred to above. And if the originating and guiding influence of reason is taken away, and reason made to be but a chance product in the evolution of things, then the evolving forces of the world will be identical with the physical forces of materialism. Thus all anti-rational systems resolve themselves into materialism, and are founded on the supposed predominance of evil in the world (pessimism).

Materialism,

Anti-intellectualism and voluntarism,

And is non-theistic

(b) The *idealistic* philosophy, called also rationalistic or intellectualistic, which makes the world to be the working out of a good, and the good to be present through the whole history of the world as idea; and makes idea to have the primacy, and to be the spring of desire, will, energy, causality, change, and the whole process of the world. This will include the different views of God called monotheistic, because these agree in making the whole evolution of the world to be the working out of an end, and to be therefore a manifestation of reason—the power of discerning and realising what is good.

And idealism which is theistic.

Making reason to be the determining power,

We are therefore compelled to say with Hegel that the truly ultimate is *Idea*, and with Plato that it is the *Idea of the Good*; because idea is

But which is objective and not subjective.

what transforms itself into will, and thereby into personality, and thence into a world of things in which person realises itself and its good. This therefore is absolute Idealism (ideal-realism), which supposes that evil is ultimately subordinated to good.

Thus all the 'Problems of Metaphysic' may be said to lead up to this final problem : Is Materialism or Idealism the true theory of the world ?

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